

Success strategies in declining industries -A case survey

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OBJECTIVE OF THE STUDY

The broad aim of this research is to understand how organizations can succeed in declining industries. This is examined from the viewpoint of strategy, where strategy types are used to explain success in declining industries. In particular, this research aims at uncovering what kind of strategies lead to success in certain kinds of decline conditions. Existing research on this topic has focused on population ecology and strategic management. This research aims at linking these two discourses to produce an investigation of how a member of a distinct population can succeed, when the population faces decline.

RESEARCH METHOD

This research is both qualitative and quantitative in nature. This research uses existing case studies that have been published in academic journals as the data. In total 27 case studies were selected for this study. This data is analyzed by using a survey. In addition, the survey data was complemented with qualitative analyses of the case studies.

FINDINGS

The research produced intriguing findings. Firstly, organizations that have a proactive stance towards their environment hold a chance of succeeding in a declining industry. Different strategy types exhibited tendencies to succeed in certain decline conditions. Of the three strategy types that were able to succeed, two were polar opposites of each other and succeeded in almost polar opposite decline conditions. The third strategy that combined these two types was able to succeed in all of the decline conditions as it was able to leverage their capabilities differently in different decline conditions.

KEYWORDS

Declining industries, success, strategic choice, population ecology, case survey

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1. Introduction

The state of decline has become more prevalent in our western societies due to the present global recession. The *Oxford English Dictionary* provides the following two related definitions of the word decline:

- **verb:** become smaller, weaker, or less in quality or quantity
- **noun:** a gradual and continuous loss of strength, numbers, or value.

In short, decline, as a word, has two meanings. First, decline implies diminishing of an entity. Second, decline implies gradualism and continuity. Therefore, decline in itself implies explicitly weakening or loss, but it also implicitly implies preservation. Thus, the word itself has a dualistic meaning. This idea of duality plays a central role in this research.

1.1. Research area and problem

Industries are not static but evolve over time and this evolution may lead to growth but also to decline of an industry (Klepper 1996; Jonavick and McDonald 1994; Gort and Klepper 1982; Ghemawat and Nalebuff 1985; 1990). As scholars have an implicit bias towards studying growth, the decline of industries has received less attention, and our knowledge of the declining industries is still imperfect (Cameron and Zammuto 1983; Whetten 1980). This opens up a fertile ground for new research, on which this research focuses on.

This research concentrates on declining industries as the context of operations for organizations. *Declining industry, for the purposes of this research, can be defined as a deteriorating environment that leads to diminished opportunities for organization operating in it* (Ghemawat and Nalebuff 1985; 1990; Whetten 1980; Zammuto and Cameron 1985, p. 226). The definition of a declining industries explicitly states that the environment deteriorates, it also implicitly states that it offers continuity and possibilities for organizations, as otherwise industries would not decline but only cease to exist. Therefore, *success in this research will be defined in relation to environment, meaning that the organizations which are able to stay in business while others exit are successful.*

This is congruent with the population ecology perspective of success, where success can be defined as selection, where survival equals success as the organization continues to exist while others cease to do so (Aldrich 2008, p. 29; Hannan and Freeman 1977). Therefore, deriving from the notions, the research problem of this research problem, the explanandum, can be defined as:

Why some organizations succeed in declining industries, while others do not?

After establishing the explanandum, the question to be explained, basis for the explanans, the answer to the question, has to be established.

The success of organizations is explained in this research with the concept of strategy. The reason for choosing strategy as the explanans is that on the level of organization as a whole, the direction, and the execution of this direction is guided by strategy (Porter 1985, p. 1; Prahalad and Hamel 1994). *Strategy, for the purposes of this research, is defined as a pattern in a stream of decisions made by an organization* (Mintzberg 1978; Mintzberg and Waters 1982; 1985; Miles and Snow 2007, p. 7). This means that organizations exhibit patterns of behavior that can be labeled as the strategy of an organization, as they guide the organization to a direction. Therefore, the reasons for success in declining industries will be explained by the patterns of decisions, labeled strategy, that organizations use to steer their selves in this context.

Widely used way of classifying strategy of an organization is the Miles and Snow typology, which is built around archetypes of strategies (Hambrick 1983; Miles *et al.* 1978; Miles and Snow 2003; Zahra and Pearce 1990). This research adopts this typology, as it has been identified to be a comprehensive way of classifying strategy of an organization (Zahra and Pearce 1990; Segev 1989).

1.2. Research gap

This thesis seeks to contribute to two central theoretical discourses where research gaps exist; these are the strategic choice discourse and the population ecology discourse (Aldrich 1979; Hannan and Freeman 1977; Child 1972; 1997; Miles *et al.* 1978). By choosing these two perspectives, it is possible to analyze success from both the level of single organization and the

population (Zammuto 1988). A closer description of the interaction of population ecology and strategic choice perspective can be found from the theoretical synthesis.

Firstly, this research aims to produce an empirical investigation of success strategies in declining industries that aggregates conclusions from a large case material. As organizations experience different types of decline, a more fine-grained approach is needed to describe the conditions of decline (Cameron 1983; Zammuto 1983). Therefore, this research utilizes a typology of decline by Zammuto and Cameron (1985) to identify and describe different decline conditions. This research aims at identifying what kind of strategies lead to success in each of these decline conditions.

Secondly, this research extends the research on the Miles and Snow typology, which has been studied in other parts of the industry life cycle but not the decline phase (Hambrick 1983; Zahra and Pearce 1990; Zajac and Shortell 1989). These studies together verify that all the strategy types are present in industries that are in other stages of the life cycle, and that performance differences exist between the strategy types. Extending the typology into the last stage of the industry life cycle can bring new insight of the success of these strategies, and how these strategies behave in adverse environments, and in relation to other stages of the life cycle.

1.3. Research questions

The research problem is operationalized through the use of three research questions. These questions are formulated so that they expand the research problem into three distinct questions that can be answered within the scope of this research.

The first research question aims at opening the array of success strategies in declining industries, establishing the strategy types that can succeed in declining industries. The different strategy types are represented by the strategic archetypes of the Miles and Snow typology (Hambrick 1983; Miles *et al.* 1978; Miles and Snow 2003; Zahra and Pearce 1990). This logic leads to presenting the first research question:

- 1. What strategy types are successful in declining industries?*

The second research question is built on the success strategies identified by the first question. As decline types are diverse, the second question aims at defining what kind of strategies succeed in which decline conditions. This would establish fit between strategy types and the decline conditions (Prescott 1986; Venkatraman and Camillus 1984; Venkatraman and Prescott 1990; Zammuto and Cameron 1985). This logic leads to presenting the second research question:

2. Which strategy types succeed in which types of decline?

The third research question aims extending the second question. After establishing the success of different strategy types in different decline conditions, the third question aims at producing higher order conclusion of the success strategies. This leads to presenting the third research question:

3. How is the strategy typology, as a whole, aligned to the decline conditions?

This would yield findings at the level both typologies as whole and how these two typologies are aligned to each other when success is used as a constant variable. As the function of a good research is not only to record occurrences in the past but also to produce theories predicting the future, the function of the third question is to open this path for the research (Eisenhardt 1989; Eisenhardt and Graebner 2007).

These three research question guide the research and its direction. By answering the three research questions, an answer for the research problem can be generated, and the purpose of this research can be reached.

1.4. Previous research

This subsection will briefly discuss the previous research concerning declining industries to produce a concise overview of research in this field. Previous research in declining industries has focused on three different streams of research that are strategic management, population ecology and exit behavior of organizations from the declining industry (Ghemawat and Nalebuff 1985;1990; Harrigan 1980a; 1980b; Harrigan and Porter 1985; Zammuto and Cameron 1985;)

Strategic management research on declining industries culminates around the works of Harrigan. These articles focus on environmental attractiveness and structural factors and relative

competitive strength of the organization. Deriving from these works, Harrigan developed strategic options for organization for organization operating in declining industries. These included strategies such as harvest the industry, exit quickly, shrink selectively or focus on a niche. Although being managerially relevant, these studies lack grounding on explicit types of decline and suggestions on what kind of responses are effective in these contexts. (Harrigan 1980a; 1980b; Harrigan and Porter 1985) These ideas initially sparked the interest for choosing the approach for this research.

Population ecology research on declining industries has focused greatly around the work of Zammuto and Cameron. Their research culminated around the generation of a typology of different decline conditions. This typology was intended to depicting why organizations face different types of decline and why there is variation in the prescriptions on how to respond to decline. (Cameron 1983; Cameron and Zammuto 1983; Zammuto 1983; Zammuto and Cameron 1985) This typology was also adopted in this research to depict different types of decline.

Discourse on exit behavior crystallizes around the reasoning of why organization and which of them exit from a declining industry when demand begins to shrink (Ghemawat and Nalebuff 1985;1990; Reynolds1988). The discourse focuses on unveiling the underlying reasoning for exit behavior of organizations. As this study concentrates on success in declining industries, the discourse of exit behavior is complimentary to the current research, but these two still have different focus.

2. Theoretical approach to the phenomenon

This section presents the main theoretical approaches used in this research and builds the theoretical framework. First, industry life cycles are introduced. The decline stage of the industry life cycle and different decline conditions are emphasized. The concept of strategy is presented as well as the strategy typology of Miles and Snow (2003) is presented. In the following theoretical discussion I will draw from these approaches to formulate a theoretical framework.

2.1. Industry life cycles

Industry life cycles can be defined as the way in which evolution occurs in industries, particularly those that are technologically progressive (Klepper 1996; 1997; Jonavick and MacDonald 1994; Gort and Klepper 1982; Utterback and Abernathy 1975). The theory of Industry life cycles is based on product life cycle concept (Abernathy and Clark 1985; Utterback and Abernathy 1975). This concept was first introduced in the marketing literature but from where it has been adapted to industry evolution literature as it has been shown to capture the way how industries evolve (Klepper 1997).

Depending on the approach, industry life cycle has three or four stages. Authors such as Williamson (1975, p. 215) recognize only three stages in the life cycle, and in so doing leave the decline stage only as an afterthought. Instead this research adopts the four stage view of industry life cycles separating the decline as a distinct stage in the life cycle. In the following four paragraphs these stages will be described in detail.

In the introduction stage market volumes are low, uncertainty of the industry is high, product designs are evolving and are possibly primitive, and production technology is still developing (Agarwal and Bayus 2004; Filson 2002; Klepper 1996; 1997; Jonavick and MacDonald 1994). Many firms enter the industry in this stage and a variation of different versions of the product is offered to the customers (Klepper 1996; 1997). Therefore, introduction is a stage where empty space in the market is abundant and the actual product is not yet clearly defined.

In the growth stage output of the industry is high, the design of the offering starts to stabilize and find its final form and specialized production equipment suited for the industry starts to overtake the old equipment (Filson 2002; Klepper 1996; 1997; Jonavick and MacDonald 1994; Utterback and Abernathy 1975). Therefore growth stage marks an initial stabilization of the industry, in other words the product design and the method of producing are beginning to become unified and standardized.

Maturity stage is the third stage in the life cycle as it marks the final stabilization of the industry. Mature industry is marked by slow growth in output, further decline in the entry of new organizations in the industry, stabilization of the market shares between the actors in the market.

This results in a shift in emphasis from innovation to increasing manufacturing efficiency and enhancing marketing and management activities. (Klepper 1996; 1997; Jonavick and MacDonald 1994; Utterback and Abernathy 1975)

The last stage of the life cycle is the decline stage, which is the focus of this research. The decline stage of the life cycle has received little attention in the industry life cycle literature as can be seen from the research made by Quinn and Cameron (1983). The definition of the decline stage is built around the concept of niche. Niche can be defined as an environmental location populated by a number of organizations (Zammuto 1983; Zammuto and Cameron 1985, p. 226). The decline stage can be defined as a condition where the niche cannot support the amount of activities, thus diminishing the carrying capacity of the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 228). Obvious determinant of decline is shrinking demand, resulting in capacity reductions among the organizations and pressure to exit the industry (Ghemawat and Nalebuff 1985). Other possible determinants include changes in demand, government regulations or changes in the availability of resources (Zammuto and Cameron 1985, p. 226).

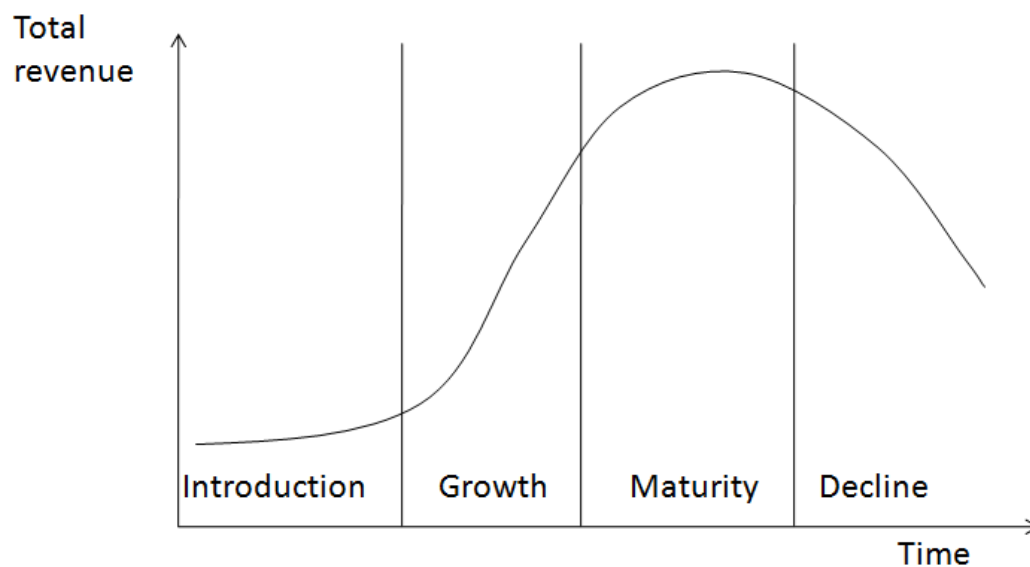


Figure 1: Product life cycle, adapted from Cox (1967)

A life cycle is usually portrayed as a bell shaped curve (figure 1 above), where the stages follow each other in an orderly manner (Cox 1967; Cunningham 1969; Dean 1950). Despite the fact that

the bell shaped curve is the most commonly used life cycle curve, 12 different life cycle trajectories can be identified (Rink and Swan 1979). Illustrations of different the life cycle patterns are presented in appendix 3. This observation undermines the general belief that declining industries always end in termination and are a place from which one should try to exit immediately.

The undervaluation of the decline stage in the life cycle rises from an implicit conception that growth is the only goal of an organization (Cameron and Zammuto 1983; Whetten 1980). This results in a tendency to study growth rather than other conditions.

The decline stage, on the other hand, can also be seen as a waiting game where organizations exit and just few end up staying (Ghemawat and Nalebuff 1990; 1985). Resulting from this, a declining industry can be seen as a post red ocean where, when the dust settles, a small population of organizations can survive and can be safe from competition. Therefore, this exemplifies a post red ocean strategy achieved by hanging on in the industry so long that competitor's end up exiting the industry (Kim and Mauborne 2004). In this vein a declining industry can be seen more as an opportunity than a threat.

The traditional bell shaped life cycle curve leads to termination. However, complete extinction appears to be missing from the industry life cycle discourse. Central studies of the industry life cycle, exemplify industries that do not end up in termination (Klepper 1996; 1997; Jonavick and MacDonald 1994; Gort and Klepper 1982). The concept of death is absent from the discourse and the term renewal is rather used to describe the development of an industry.

Although the industry life cycle concept has been widely accepted, the research on has limitations. Bulk of the research has focused on manufacturing industries. Therefore, research on non-manufacturing industries is scarce and undermines the reliability of the concept outside the field of manufacturing. Second, industries with rapid technological development and frequent discontinuities may not be applicable, as they develop too rapidly to fit into the traditional life cycle model (Anderson and Tushman 1990). This implies that in some cases the life cycle may not follow the standard bell shaped curve but differentiates from it. In addition, as product life cycle can take many forms (see appendix 3), it would be logical that industry life cycles can take many forms as well.

The next subsection will discuss the decline stage of the life cycle in depth. From here onwards this stage will be referred with the term environmental decline. As the industry life cycle does not always follow the bell shape curve, environmental decline is used to determine reaching of a decline stage, whether it leads to termination or not.

2.2. Environmental decline

This research adopts a population ecology perspective to the decline advocated by Zammuto and Cameron (1985). Population ecology is a field of research which studies the behavior of populations of organizations, and especially, their relationship to the changing environment (Aldrich 1979, p. 27; Hannan and Freeman 1977). *Population ecology views environment as deterministic, in which environmental pressures determine the successful organizations* (Aldrich 1979, p. 27; Hannan and Freeman 1977; Zammuto 1988). Single organization in the population is a semi passive entity that is subject to environmental selection and in some cases able for extreme adaptation (Hannan and Freeman 1977).

The reason for choosing this perspective on decline is twofold. First, this perspective aims at explaining why differences exist in decline conditions, thus expanding the concept of decline into a typology rather than keeping it as a single phenomenon. This enables a more fine-grained approach to the phenomenon of environmental decline. Second, through adopting this view, it enables a tighter definition of the group under scrutiny. As the term industry is vague, this research adopts the ecological niche as the focus of study. To clarify this definition, *niche can be defined as an environmental location that is populated by a number of organizations* (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 226). Niche is, therefore, a habitat of a population of organizations within an industry (Taggart 1995). This definition gives leeway as many of the cases regard global industries in which the area of interest is a local niche.

Environmental decline in this research is defined as a change in the ecological niche that diminishes the carrying capacity of the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 228). Therefore, environmental decline views decline from a population perspective excluding the decline of single organization. The decline of a single organization belongs to the rubric of

organizational decline that should not to be mixed up with environmental decline (Cameron, Kim and Whetten 1987).

Niche is defined by a set of condition such as physical, biological and social conditions that constrain the performance of the population of organization in the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 226). Every niche has a distinct carrying capacity that defines the level of population which a niche can support at a point in time (Zammuto and Cameron 1985, p. 226). Changes in the carrying capacity of the niche affect the potency of success and survival of organizations in a given niche. Carrying capacity of a niche can diminish in two major ways resulting in environmental decline. Firstly, these could be changes that occur for reasons that are outside the control of the population, for example, changes in the amount of customers, or, secondly, changes that arise from purposeful actions inside the population, for example technological advancements (Zammuto and Cameron 1985, p. 226, 227).

In the ecological niche, *each organization inhabits an organizational domain that is the part of the niche in which an organization operates* (Zammuto and Cameron 1985, p. 227). This domain is defined by the clients the organization serves, the technology the organization uses and the product or service the organization produces (ibid.). In conditions of environmental decline, it is the organizational domain that the organization adjusts in order to respond to the decline.

2.2.1. Determinants of the type of environmental decline

Zammuto and Cameron (1985, p. 228-231) define two types of changes in the configuration of an ecological niche that can result in environmental decline. These two types regard the way how the environment changes and act as one dimension of the change. The second dimension of change regards the continuity of change in the environment. The first dimension of change regards how the environment changes

Change in niche size refers to the diminishment of activities that the niche can support (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 228). This can occur due to a variety of reasons such as shrinkage of available resources, decline in demand of goods or services produced by the occupants of the niche or increased constraints posed to the niche such as government

regulations. Therefore, resulting in either reduced ability to produce goods/services or diminishing demand of the output. Accordingly, the carrying capacity of the niche diminishes and carrying capacity is lost.

In contrast, *change in the niche shape means that the type of organizational activities supported by the niche is changed* (Cameron and Zammuto 1983; Zammuto and Cameron, p. 229). Then, the change is a result of changes such as transformation of the production technology or a change in demand. Change in niche shape therefore results in a transformation of the carrying capacity of the niche to generate a new niche or modify the existing niche. Therefore, carrying capacity is not lost but it has been transformed to support other types of activities.

In addition to the way how an environmental niche changes, the continuity of a change is of essence. Change can occur in a two types that are continuous or discontinuous (Zammuto and Cameron 1985, p. 230; Tushman and Andersson 1986). In this context continuous change is a change that is consistent with past changes representing a long term trend whereas discontinuous change represents change that deviates from the past and hence is unpredicted (ibid., p. 231). The pattern of change in the environment affects the way in which organizations react and perceive change in their environment.

2.2.2. A typology of environmental decline

Based on the type of change in the configuration of the niche and the continuity of decline, Zammuto and Cameron (1985, p. 232) have formulated a typology of environmental decline that incorporates the determinants of the type of change in the environment (figure 2). In the typology, Y axis represents the type of change in the niche configuration, that is the change in niche size or niche shape, and the X axis represents the continuity of environmental change.

Type of change in the niche configuration		Continuity of environmental change	
		Continuous	Discontinuous
Niche size		EROSION	CONTRACTION
Niche shape		DISSOLUTION	COLLAPSE

Figure 2: Typology of environmental change (Zammuto and Cameron 1985, p. 232)

The typology introduces four different types of environmental changes. These types of environmental change are erosion, contraction, dissolution and collapse. These conditions of environmental change are discussed in detail in the following paragraphs.

Erosion is a condition of decline in which the niche size gradually decreases decreasing the carrying capacity of the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 231). In this condition, the carrying capacity of the niche steadily decreases hindering the ability of organizations in the niche to survive. In practice, erosion is a slow, steady and predictable decline of the environment of a population of organizations. It does not cause an immediate threat for the survival of organizations and gives time to consider alternatives (Cameron and Zammuto 1983).

Contraction is a decline condition in which the size of the niche suddenly decreases decreasing the carrying capacity of the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 231). This type of decline suddenly decreases the carrying capacity of the niche that cannot be predicted by the organization before the change in the environment actually occurs. This

generates a rapid shock in the niche placing the survival of an organization under jeopardy (Cameron and Zammuto 1983).

Dissolution represents a decline condition where a niche gradually transforms into another as the shape of the niche changes and the carrying capacity transforms (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 231). This type of change represents a type of decline where the niche evolves into another due to changes such as technological change or change in demand. This makes the old way of operating progressively less acceptable in the environment (Cameron and Zammuto 1983). Therefore, the niche goes through a steady evolution where the demand, resources or other factor transforms the niche, not necessarily resulting in lost carrying capacity.

Collapse is a decline condition in which the change in niche shape is so rapid that the existing niche is more or less wiped out and replaced by a new niche that is able to respond to the changes in the carrying capacity of the niche (Cameron and Zammuto 1983; Zammuto and Cameron 1985, p. 232). This represents a dramatic and rapid abolishment of the old niche that is replaced by a new niche. In practice, collapse is a sudden and dramatic change in the type of activities the niche supports which can result from changes such as rapid technological change or change in legislation. Despite this, the carrying capacity is not lost, but transformed rapidly due to changes in demand, resources, legislation or any other similar reason.

The value of the typology lies in its ability to explain why there are different conditions of decline between populations, why different types of organizations in a population do well when others do not and what types of strategies are likely to be productive in different conditions of decline (Zammuto and Cameron 1985, p. 232, 233). For the purposes of this research, the typology enables the condition of decline to be broken down into distinct decline conditions. This enables a more fine-grained analysis of the success strategies in declining industries.

2.3. Strategy as a concept and its relationship to environment

In this section, strategy as a concept will be discussed. This section will begin by defining strategy for the purposes of this research. Strategic choice perspective is introduced where the strategy, structure process view of Miles and Snow (2003) is chosen for closer examination. Last, the concept of strategy environment coalignment is discussed.

Strategy is a term used far and wide and it has multitude of different definitions. For this research, *strategy is defined as a pattern in a stream of decisions made by and organization* (Mintzberg 1978; Mintzberg and Waters 1982; 1985; Miles and Snow 2003, p. 7). This perspective enables strategy to be inferred from the behavior of the organization, where one can associate strategy with intent and structure with action (Miles and Snow 2003, p. 7). Therefore, the strategy of the organization manifests from the stream of choices it makes, in this research in particularly regarding adjustments to environmental changes.

2.3.1. Strategic choice perspective

Strategic choice perspective was originally introduced as a corrective view to counter the view that organizations are designed and structured by their operational contingencies, moreover it states that leading groups in organizations have an active role and power to influence the structures of the organization (Child 1972; 1997). The strategic choice perspective views leading groups within organizations as empowered to steer the organization to different directions and in this vein organization is not a victim of its environment but an actor that that is able to make choices at least partly regardless of the environment (ibid.). In this sense, strategic choices made by the organization are reflections of its top management and their perceptions (Hambrick and Mason 1984; Miles *et al.* 1978).

Key issue in the strategic choice perspective is the relationship between organization and the environment (Child 1997). On the contrary to environmental deterministic views such as population ecology, *strategic choice perspective draws attention to the various possibilities enabling choice on part of the organizational actors and arguing that organizations act to create*

their environment (ibid., Miles and Snow 2003, p. 5). Thus, the relation with environment is not a constraining but rather an interactive (Child 1997). This is due to the notion that organizational decision-makers have to respond to environmental feedback, which result in new action choices through learning and, hence, making the role of environmental both a constraint and also enabler of choice (ibid.). Although, population ecology and strategic choice perspectives can be regarded as competing perspectives, their relationship will be discussed in the theoretical synthesis.

Strategic choice is especially visible in the study of U.S. firms and hospitals by Miles and Snow. In this research they developed a typology of policies organizations adopt to adapt to changes in their environment (Miles et al. 1978; Miles and Snow 2003; Child 1997). The next two subsections will present the Miles and Snow strategy typology and the underlying logic.

2.3.2. Organizational strategy, structure and process

Organizational adaptation to environmental change is a highly complex phenomenon. Miles, Snow, Meyer and Coleman (1978) separate three aspects that are of essence in adapting to changes in environment. These are strategy, that is the way an organization defines its product-market domain, and construct mechanisms consisting of organizational structures and processes (Miles et al. 1978). Through modifying the mechanisms organizations pursue these strategies. Miles and Snow (2003, p. 21) argue that *organizations adapt to their environment through adaptive cycles where managers have to give attention and decide on three types of problems* that define the way how the organization adapts. These problems are the entrepreneurial problem, the engineering problem and the administrative problem (ibid.; Miles et al. 1978). In the following paragraphs these problems will be described in detail.

Entrepreneurial problem refers to deciding the product-market domain in which the organization operates. The manner in which organizations solve this problem manifests when organizations commit resources to achieving objectives that are set to the product-market domain.

This means that organizations project an image that defines the market in which the organization aims at operating in. In addition, it also defines the organizations orientation towards the market which can be for example orientation towards innovation or efficiency. The entrepreneurial

problem is most visible in organizations that are new or rapidly growing. (Miles *et al.* 1978; Miles and Snow 2003, p. 21)

Engineering problem refers to the management's solution and operationalization of the entrepreneurial problem. Solving this problem involves selecting appropriate technology for producing the chosen product or service while ensuring simultaneously the proper functioning of the production system. Solving the engineering problem formulates a manifestation of the solution to the entrepreneurial problem identified earlier as it is guided by it. (Miles *et al.* 1978 Miles and Snow 2003, p. 22)

Administrative problem refers to reduction of uncertainty in the organizational systems. This involves a balancing act between rationalization and stability of the organizational structures versus uncertainty and instability generated by evolution of the organization through innovation. Therefore, the way how administrative problem is solved, largely contributes to the stance and organization takes on structural stability and innovativeness. (Miles *et al.* 1978; Miles and Snow 2003, p. 23)

Despite the complexity of organizational adaptation, organizations exhibit patterns in the way they move through the adaptive cycle and solve the three interrelated problems (Miles *et al.* 1978). *These patterns of adaptation in solving their entrepreneurial, engineering and administrative problems represent the strategies organizations employ.* Hence, the way an organization moves through the adaptive cycle defines the organizations strategy. These patterns are reflections of the strategic choices the organizations top management makes (Hambrick and Mason 1984; Miles *et al.* 1978).

By adopting this view, strategy of an organization can be inferred from the structures, processes and decisions of an organization. This enables one to define an organizations strategy from the way it adjusts to its environment by examining its pattern of adjustment. Therefore, strategies can be categorized on the basis of how the organization adjusts to environmental changes.

2.3.3. Miles and Snow strategy typology

Four types of strategies can be identified on the basis of the way an organization moves through the adaptive cycle. These strategy types are named defender, prospector, analyzer and reactor (Miles *et al.* 1978; Miles and Snow 2003, p. 29). They will be defined more closely in the following paragraphs.

Defenders are strategy types that strive to generate a protected domain in the market that they can defend and hold (Miles *et al.* 1978; Miles and Snow 2003, p. 29; Snow and Hrebiniak 1980).

Defenders actively prevent competition from entering their territory by for example using competitive pricing and superior quality products. Top managers of these organizations concentrate on the domain the organization dominates and seldom search for new opportunities outside their own domain (Miles and Snow 2003, p. 29; Snow and Hrebiniak 1980). Thus they focus on a small organizational domain that seldom goes through changes. As a conclusion, defenders aim at defending their domain in all possible ways.

Defenders define their entrepreneurial problems in terms of sealing off a portion of the market to create a stable organizational domain. This problem can be solved in a number of ways, such as occupying a narrow and a stable domain, aggressively defending the domain with for example competitive prices and excellent service, ignoring developments of the market and emphasis on cautious and incremental growth. (Miles *et al.* 1978) All these exemplify a way of reacting which is focused around current operations and efficiency.

Defenders define their engineering problem as how to produce and distribute goods as effectively as possible to dominate the domain in which they operate. Defenders tend to solve this problem by focusing on cost efficient technologies, single technological core and continuous improvement in technology to remain as efficient as possible. (Miles *et al.* 1978) Furthermore, this represents a coherent solution to the entrepreneurial problem identified earlier as these choices lead to focus and efficiency.

Defenders define their administrative problem in finding ways to maintain a control over the organization to ensure efficiency of the operations. Defenders solve this problem by having financial and production experts as the leaders of the dominant coalition whose tenure is long,

intensive cost focused planning, functional structure with a high degree of formalization, centralized control of the organization. (Miles *et al.* 1978) These represent coherent ways of responding to the administrative problem as they enhance stability and efficiency of the organization.

Solutions to all these three problems have costs as well as benefits. First, it is difficult to displace a defender from its position in the niche, but if a major change in the market would occur a defenders' survival could be threatened. As defenders solve their entrepreneurial problem through technological efficiency they are not able to respond to substantial technological changes. In addition, their administrative system is well suited for maintaining stability whereas it lacks a capability to locate new market opportunities and respond to new products introduced to the market. (Miles *et al.* 1978) While at the same time the characteristics of this type have benefits, they also have downsides that need to be dealt with.

Prospectors are almost polar opposites of the defenders as they strive to find and exploit new product and market opportunities (Miles *et al.* 1978; Miles and Snow 2003, p. 29; Snow and Hrebiniak 1980). Prospectors actively seek for new markets and opportunities while keeping low levels of attachment to their current technological core, and therefore aim at generating competitive advantage by being first to exploit new opportunities. Top managers of these organizations emphasize effectiveness as they focus on product research and development, market research and basic engineering (Snow and Hrebiniak 1980). Prospectors focus on large, constantly developing domains where they can utilize their capabilities to follow and create change in a dynamic environment (Miles *et al.* 1978).

Prospectors define their entrepreneurial problem as locating new markets and exploit new product opportunities. They tend to solve the problem by occupying a broad and continuously developing domain, constantly monitoring the market for new opportunities, creating change in the industry where they operate and growing through product and market developments that can occur in spurts. (Miles *et al.* 1978) These represent a vivid organization that constantly defines itself through the opportunities it manages to seize while keeping eyes open for new opportunities to be seized.

Prospectors define their engineering problem as how to avoid long-term attachment to a single technology that would constrain it. They solve this problem by focusing on flexible, prototypical

technologies, utilizing multiple technologies simultaneously and having low levels of routinization. (Miles et al. 1978) This enables prospectors to be minimally attached to a single technology and hence able to move quickly to adapt new technologies that present opportunities to be on the cutting edge.

As prospectors focus on seeking new opportunities, they define their administrative problem as how to facilitate and coordinate the diverse operations that they run simultaneously. They tend to solve this problem by having marketing as well as research and development personnel as the leading members of the dominant coalition that is large, diverse and transitory. They tend to have comprehensive planning that is problem oriented, which is complemented by a product structure with low degree of formalization and decentralized control. In order to accommodate this, they have complex coordination mechanisms and performance measurement against closest competitors. (Miles et al. 1978) All these choices steer the organization towards proactive stance to its environment and new opportunity generation.

All these problems together inflict some benefits to prospectors but also incur some costs. The organization is quite well protected against changing environments due to its capabilities while it runs on a risk of low profitability as it is not able to focus on single technology that it could exploit for sustained amounts of time. Technologically, the organization can respond very quickly when the domain changes, yet cannot gain maximum efficiency. The administrative system is also configured to accommodate rapid change and therefore runs on a constant risk of misutilization of resources due to these diverse activities. (Miles et al. 1978) While these characteristics give substantial benefits, they also incur large costs that need to be dealt with.

Analyzers are a combination of defender and prospector strategy types (Miles et al. 1978; Miles and Snow 2003, p. 29; Snow and Hrebiniak 1980). They are organizations that attempt to minimize risk while simultaneously maximizing potential profits by balancing efficiency and power in the current market and at the same time seeking for new lucrative opportunities (Miles et al. 1978; Miles and Snow 2003, p. 29). Top managers of these organizations emphasize stability and efficiency in the stable areas of operations, whereas at the same time in the more turbulent areas of operations they closely watch the developments of the market and adopt new approaches as soon as they have been established effective (Miles and Snow 2003, p. 29; Snow and Hrebiniak

1980). Analyzers thus focus simultaneously on a hybrid domain which is partly stable and partly dynamic where they can utilize their dual technological core (Miles et al. 1978).

Analyzers define their entrepreneurial problem as how to simultaneously locate and exploit new product and market opportunities while keeping a firm grip of the existing products and customers in the stable domain. They tend to solve this problem by occupying a hybrid domain that is both stable and a changing one; they both occupy a stable part of domain and scan the market to generate growth by market penetration and product development. (Miles *et al.* 1978)

The engineering problem of analyzers rises from the conflicting demands for technological flexibility and stability. Analyzers tend to solve this problem by utilizing a dual technological core, where part of it is stable and part of it is flexible. (Miles *et al.* 1978) This enables an analyzer to take a full advantage of its dual focus by both exploiting current technologies and exploring new ones to maximize the benefits it can receive.

Administrative problem of analyzers is also similar as it can be crystallized around how to divide the organizations structure and processes to hold both stable and dynamic operations. Analyzers can have a number of solutions for this problem such as that marketing and engineering form the most influential members of the dominant coalition. In addition, intensive planning occurs between marketing and production regarding the stable portion of the domain, whereas the new markets are planned among marketing, engineering and product managers. These organizations can also have loose matrix structures that have moderate centralized control and complex coordination mechanisms to hold together the different areas of operations. To complement these, performance appraisal can be based both on efficiency and effectiveness. (Miles *et al.* 1978) These all exemplify how analyzers strive to keep their dual operations running simultaneously and as efficiently as possible.

These characteristics give analyzers benefits but incur also costs. While the analyzers are able to incur low levels of investment in research and development and have an ability to imitate successful products that minimizes their risk; they require a well balanced domain to ensure flexibility and stability simultaneously. The dual core that analyzers leverage to serve stable and changing operations can never assume full efficiency or effectiveness as it constantly drifts between these two. The administrative system of analyzers is ideally suited for the dual operations required by the technical and entrepreneurial problems but it runs on a constant risk of losing the

balance that may be difficult to restore. (Miles *et al.* 1978) Therefore, while analyzer can combine the two extreme strategy types, they run on a constant risk of falling out of balance and losing efficiency and effectiveness. Still, this strategy type exemplified an organization that both lives in the present by exploiting current opportunities but also explores new opportunities can be used in the future.

Reactors are organizations that exhibit inconsistent and unstable strategies (Miles *et al.* 1978; Miles and Snow 2003, p. 29; Snow and Hrebiniak 1980). Reactors lack the consistent response mechanism and proactive stance towards their environment that the other three hold. This result from their adaptive cycles, which is inconsistent and inappropriate. Top managers of these organizations are generally unable or unwilling to develop the competencies required to assume a stable strategic form. Due to their reactive relationship to environment and inability to respond accordingly, they tend to perform worse than all the other three strategy types that exhibit a consistent strategy (Miles *et al.* 1978). Due to these reasons organizations cannot continue to behave like reactor indefinitely and will either move to a consistent strategy or cease to exist.

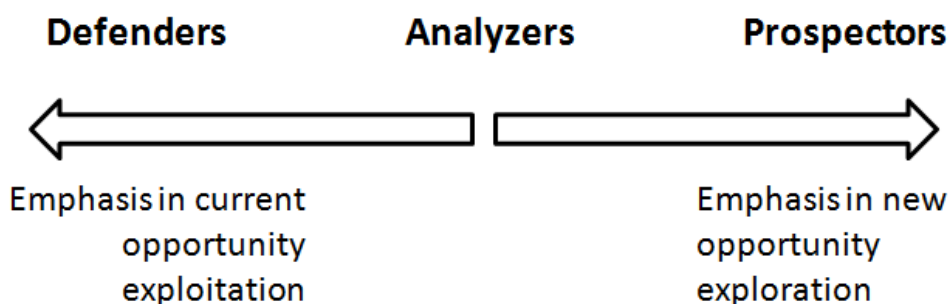


Figure 3: Strategic emphasis of each of the strategy types, adapted from Miles and Snow (1978)

The strategy types can be portrayed in a continuum from a pure focus to current market and efficiency, to a constant search for new markets to expand and move into. Figure 3 illustrates the continuum of the type of emphasis each strategy type gives. Note, that reactors are not presented in the figure, as they do not exhibit consistently any strategy type and therefore cannot be illustrated in such a continuum, as they cannot be placed constantly in any part of the continuum.

Thus far the Miles and Snow typology (2003) has been studied in multiple industries, such as hospitals, retailing, tobacco production, banking and electronics production (Meyer 1982; Chaganti and Sambharay 1987; McDaniel and Kolari 1987; Smith *et al.* 1989; Moore 2005). In addition, the typology has also been studied with research spanning multiple industries (Hambrick 1981; 1983; Snow and Hrebiniak 1980). At the time of writing this study (February 2010), the seminal article by Miles, Snow, Meyer and Coleman (1978) was cited over 4500 times in the Google Scholar system. This implies that the Miles and Snow strategy typology is highly cited and studied theory of organizational adaptation. Exhaustive review of the studies involving the typology would be an independent research in itself.

In studies of the strategy typology, defenders and prospectors are the most frequently included strategy types in studies, and analyzers follow close behind in the frequency of appearance (Zahra and Pearce 1990). Reactors, on the other hand, are not that often included in studies of the strategy typology despite they are able to succeed in certain environments (Snow and Hrebiniak 1980). This research includes the reactors, although they are predicted not to succeed in conditions of change.

Although being widely accepted, the typology has received critique. First, self-typing, as the method of group extraction, is widely used to identify different strategy types (Snow and Hambrick 1980; Snow and Hrebiniak 1980; Zahra and Pearce 1990). This means that the managers of organizations are used to characterize the strategy of their organization (*ibid.*). This method has received wide critiques as the managers exhibit a tendency to intentionally avoid identifying their organization as a reactor, and view their organization as unique and therefore not directly fitting to the typology (Conant *et al.* 1990; Snow and Hambrick 1980; Zahra and Pearce 1990). Despite this, this approach has also its proponents (James and Hatten 1995; Shortell and Zajac 1990). This research uses classification by investigator as the method of group extraction and therefore avoids being drawn into this debate.

Second, research on the typology suffers from overemphasis of between-group differences (Zahra and Pearce 1990). This implies that within group differences have been largely ignored (*ibid.*). Therefore, the unique differences within strategy types could give valuable insight into why performance differences exist within the strategy types. This research deals with the matter by

analyzing within and between group differences to gain deeper understanding of the performance of each of the strategy types in decline conditions.

By adopting the strategy typology, strategy types of organization can be extracted from their actions. Therefore, an organization can be assigned a strategy type based on how it adapts to environmental changes. Second, the typology introduces broad strategy types under which the research data can be distributed. This allows the generation of groups of data that have similar features.

To conclude, each of the strategy types, except reactors, exhibit strengths and weaknesses that can lead them to succeed in an environment. The way how each of the strategy types succeeds appears to be largely related to the environment in which the organization operates, as each type portrays characteristics suitable to different environments.

2.4. Strategy and environment coalignment

Strategic choices do not occur in a vacuum. Rather, organizations adapt to their environments to achieve coalignment. This alignment of external environment and organizations structures and processes is of great importance

Correct alignment of the strategy of organization and the environment has a positive impact on the performance of an organization (Prescott 1986; Venkatraman and Camillus 1984; Venkatraman and Prescott 1990). Therefore, the correct alignment of strategy to the declining environment is of essence as competition intensifies and the carrying capacity of the niche starts to reduce. Despite the fact that organizational ecology and strategic choice perspectives have been identified as competing perspectives they can be aligned so that they are not mutually excluding and can be operationalized simultaneously (Hrebiniak and Joyce 1985; Zammuto 1988)

This research takes a reductionist view on the strategy and environment coalignment. “The reductionist perspective of a coalignment is based on a central assumption that the coalignment between two constructs (such as environment and strategy) can be understood in terms of pairwise coalignment among the individual dimensions that represent the two constructs”

(Venkatraman and Prescott 1990). The coalignment of environment and strategy is therefore viewed as matching the strategic choices to environmental categories that result in success.

As the research produces snapshots of organization strategies in the decline conditions, dynamic interaction of the strategy and environment is left outside of the scope of this research. This is certainly a limitation of this research but it is congruent with the method of matching strategic choices to decline conditions.

The research framework presented in the next subsection is built on the ideal profiles of strategy types that match the environmental condition where success as an outcome is used as a constant variable. Theoretical postulations are built upon the descriptions of environment where each of the Miles and Snow strategy type is perceived to be the most efficient (Miles *et al.* 1978). This notion is supported by Zammuto (1988), who argues that some strategies are more successful in different decline conditions than others.

2.5. Theoretical synthesis and research framework

In this chapter, two different theoretical discourses have been introduced. The aim of this discussion has been to introduce declining industries as a context of operations and strategy as the way how organizations react to changes in their environment.

First, industry life cycles were presented and emphasis was given to an environmental decline and the typology of decline conditions (Cameron and Zammuto 1983; Zammuto and Cameron 1985). This typology of decline conditions forms the context of this research.

Second, strategy as concept was introduced and strategic choice perspective as a strand of strategy research was presented. From the strategic choice perspective, the classic strategy typology of Miles and Snow was chosen to represent different strategy types that organizations can employ (Miles and Snow 1978; 2003).

Strategy and environment coalignment was discussed to bridge the concept of strategy with environment. The concept of strategy-environment coalignment was brought up as a moderator of success of organizations (Prescott 1986; Venkatraman and Camillus 1984; Venkatraman and

Prescott 1990; Zammuto 1988). As mentioned earlier, for the purposes of this research, a reductionist perspective is adapted to portray the strategy-environment interaction. Furthermore, this is also congruent with the methodology chosen for this research.

Organizational ecology and strategic choice perspectives have been identified as competing perspectives. This debate culminates on the question, “is organizational life determined by intractable environmental constraints or is it actively created through strategic managerial choices” (Astley and Van De Ven 1983). Despite this, these two perspectives can operate simultaneously (Hrebiniak and Joyce 1985; Zammuto 1988). This rises from the level of analysis that is used (Astley and Van De Ven 1983). Population ecology examines populations of organization from the level of niche that defines the bounds of a population. Individual organizations generally choose only to inhabit only a part of the niche, establishing a sub space in the niche labeled organizational domain (Hannan and Freeman 1977; Zammuto 1988). The concept of domain is accepted in both of the discourses (Hannan and Freeman 1977; Miles and Snow 1978). It is the domain of activities that a single organization can alter to align itself to its niche. Therefore, a single organization has the capability to alter its domain within the niche, while simultaneously the population of the niche is subject to environmental selection (Astley and Van De Ven 1983; Hannan and Freeman 1977; Zammuto 1988). Despite this, the organizations are constrained by the perceptions of their management regarding possible choices (Miles *et al.* 1978; Hambrick and Mason 1978). Correct strategy-environment coalignment leads to selection and retention (Aldrich 1979, p. 27; Venkatraman and Camillus 1984; Venkatraman and Prescott 199). In this vein, some strategic choices are more successful in different environmental conditions than others, while organizations still are able to choose their response to environmental changes (Zammuto 1988). Although, the choices of organizations are limited to those which the managers believe will allow effective operation, meaning that choice is constrained by the backgrounds of the managers (Hambrick and Mason 1984; Miles *et al.* 1978).

Building on aforementioned arguments, this research utilizes the typology of decline conditions identified by Zammuto and Cameron (1985) as the context, where organizations make different strategic choices represented by the typology of strategies identified by Miles and Snow (2003). As the goal of this research is to recognize successful strategies, the objective of the empirical part is to find different strategies that result in success in different conditions of environmental decline

and result in strategy-environment coalignment (Prescott 1986; Venkatraman and Camillus 1984; Venkatraman and Prescott 1990).

The Miles and Snow strategy types have quite explicit definitions of which environments they fit the best and drawing from there, how they would fit to the different decline conditions (Miles *et al.* 1978; Zammuto 1988). Therefore, it is possible to postulate that each of the strategy types would succeed in a certain environment. Each strategy type is assigned to only one decline condition, as the emphasis of each of the types best fits to only one decline condition based on theory. *The figure 4 below portrays the theoretical framework built upon the ideal characteristics of different strategy types and conditions of environmental decline.* The following paragraphs identify how the Miles and Snow strategy types (Miles *et al.* 1978) would fit into the decline conditions presented by Zammuto and Cameron (1985) and the underlying reasoning.

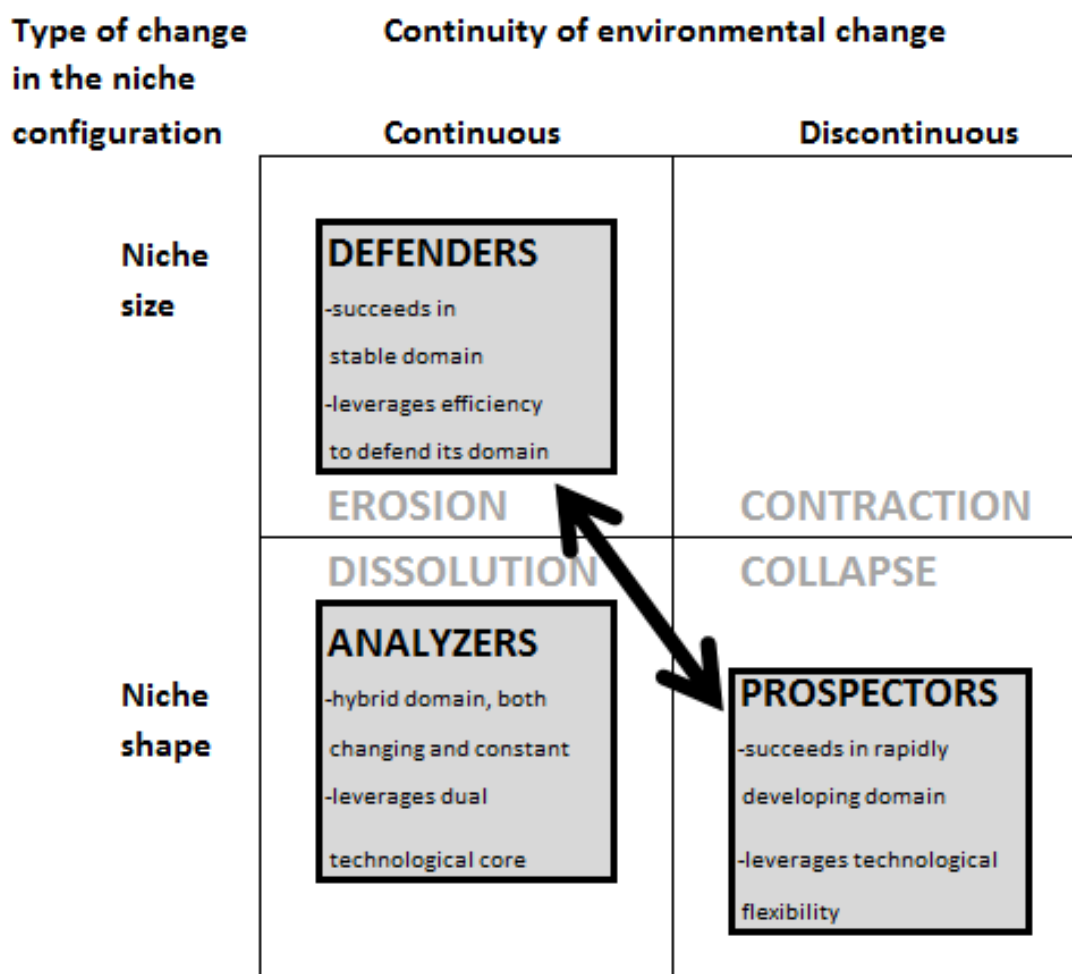


Figure 4: Strategy-environment coalignment framework

Defenders are organizations that succeed in relatively stable industries where turbulence is minimal as they are unable to respond to quick major shifts in the market (Miles *et al.* 1978; Snow and Hrebiniak 1980). This would rule out the possibility that a defender would succeed in a niche facing discontinuous change. The main advantage of a defender is its efficiency in a small domain in the market, which it is able to defend with this efficiency. If the niche shape were to change, the defender could easily end up in a situation where its domain would rapidly deteriorate due to the change. *These notions conclude that defenders have the best strategy-environment coalignment with the decline condition of erosion as they would be able leverage their capability for efficiency in a steadily dimishing environment* (Zammuto 1988).

Prospectors are organizations that succeed in dynamic environments as they are able to respond quickly to the changes in the surrounding environment and also act as the initiator of change in their environment (Miles *et al.* 1978; Snow and Hrebiniak 1980). The main advantage of a prospector is its ability to find and exploit new product and market opportunities before the competitors can do so (Miles *et al.* 1978). This would imply that prospectors succeed in environments where the niche shape changes. On the other hand, prospectors are unable to succeed in more stable environments as their orientation towards innovation undermines their efficiency (ibid.). This, on the other hand, would rule out the possibility to succeed in continuously changing environments. *These notions conclude that prospector have the best strategy-environment coalignment with the decline condition of collapse as they would be able to leverage their capability to create change and respond to it in a rapidly changing niche* (Zammuto 1988). The rapid and discontinuous change would also shield the prospectors from analyzers that would be able to overpower prospectors with their ability to leverage both the ability to move to new developing markets and be efficient.

Analyzers are a combination of defender and prospector strategies, they are organizations that try to minimize risk but at the same time maximize opportunity for profit (Miles *et al.* 1978; Snow and Hrebiniak 1980). The main advantage of an analyzer is its ability to keep firm grip of the current market but at the same time follow developments in the market to be able to be an early entrant into new markets (Miles *et al.* 1978). This would imply that analyzers would succeed in niches where the niche shape changes, as they would be able to follow the first movers into the new

developing niche. As analyzers' adaptive approach is a balanced one, they do not fit into rapidly changing markets, but rather into markets that evolve at a moderate pace in which they can follow the prospectors and enter new markets without incurring the prospector's extensive research expenses (ibid.). This would imply that analyzers fit best to conditions of continuous changes as they would be able to capitalize on their ability for efficient but also the ability to be an early entrant to new niches. *These notions conclude that analyzers have the best fit with the decline condition of dissolution as they would be able to leverage their ability to exploit current niche opportunities, while simultaneously following the development of new niches in the industry.*

Reactors are organizations that do not exhibit proactive approach to the changes in the environment (Miles et al. 1978; Miles and Hrebiniak 1980). Their reactions to the changes in the environment are inconsistent and unstable. As Miles *et al.* (1978) state, when faced with a change a reactor will either assume a consistent strategy or perish, they should not be present in declining industries.

These descriptions of how the strategy types would align with environment according to theory formulate the theoretical framework of this research. Following from this, the empirical part of this research aims at uncovering the behavior of the strategy types in declining industries and relates these findings to the research framework by enhancing it. Furthermore, these findings are also compares to previous studies of the Miles and Snow typology to reveal similarities and differences.

3. Methodology

This section presents the method use in conducting the empirical research of this thesis. This section presents the case survey method and its position in the category case study methods. It also uncovers the method used to generate data and the methods used to analyze it. In addition, the reliability and validity of the data are discussed.

3.1. Case study research

A case study as a research strategy can be defined as an empirical inquiry that investigates a phenomenon within its context, where the boundaries between the phenomena and the context are not clearly evident (Yin 2003, p. 13). Case studies have been proven to be an excellent method of generating and testing theories in the field of strategy (Gibbert *et al.* 2008). When considering this research in the light of case as a research strategy, the goal is to investigate a phenomenon that cannot be separated from its context as it is the context that largely defines the research. Therefore, this research complies with the guiding idea behind case study as a research strategy.

Case studies can have multiple different aims. Case studies can aim at illuminating a decision, a set of decisions, individuals, organizations, processes, programs, neighborhoods, institutions or events and the underlying reasoning behind them (Yin 2003, p. 12). The aim of this research complies with aims of a case study method as the aim is to illustrate choices by organizations which lead to success in the context of declining industries.

Case study research in the field of strategy has shifted to rely substantially on positivistic research tradition as the criteria used to assess the rigor of field research are drawn from this tradition (Eisenhardt 1989; Gibbert *et al.* 2007; Yin 2003). These criteria are construct validity, internal validity, external validity and reliability and they will be discussed in the detail in the reliability and validity subsection. It appears that despite being declared dead by many contemporary philosophers of science, the positivistic tradition still holds strong as it is deeply rooted in our western thinking (Kincheloe and Tobin 2009). This research also has a positivistic undertow, as the research first builds a theoretical framework which is then empirically tested and corrected; this resembles the use of scientific method (Behling 1980; Kincheloe and Tobin 2009). Secondly the research uses a reductionistic perspective of the studied phenomena that also rises from the positivistic tradition (*ibid.*).

3.1.1. Case survey method

Case survey method was first used and introduced as a research approach by Yin and Yates in 1974 in their research on decentralization and urban services. From there onwards the method has been refined by authors such as Larsson (1993) and Lucas (1974). As such, the research method has never broken into mainstream and has remained only as a small strand in the case study methodology.

The essence of a case survey methodology is the use of existing case studies as data from which tendencies are aggregated through a survey (Lucas 1974; Larsson 1993; Yin and Heald 1975). The method aims at balancing qualitative and quantitative research approaches, as the data consists of case studies exploring phenomena in their real-life context which represents the qualitative approach, of which tendencies are drawn with the use of a survey which represents the quantitative approach. This research approach therefore aims at combining these two approaches to get the best out of both research strategies.

Using case studies as the data stems well with the research setting as case studies seek to study phenomena in their context, in this research declining industries, and the research approach emphasize this importance. Case studies hence give a good access to the reasoning behind success in declining industries.

Producing generalizations out of a case study is difficult due to the nature of case study as a research strategy (Stake 1995, p. 7). The fundamental idea behind a case study is to produce in-depth insight of an entity or a limited number of entities that at best yield tendencies but not generalizable patterns (Stake 1995, p. 7). Instead, case survey can produce patterns between case studies that give rough indications of the studied phenomenon.

As the amount of cases diminished substantially from the initial sample to the final sample, the case survey method was applied in a way that it would accommodate both qualitative and quantitative analysis.

3.2. Constructing the survey

The survey form was generated on the basis of the decline conditions of Zammuto and Cameron (1985) and the strategy types of Miles and Snow (2003). The goal of the survey was to enable the plotting of different strategy types into the different decline conditions.

As this research takes a reductionist perspective to the strategy-environment coalignment, the survey was broken down into three parts. The first part regarded background information and had the case number, so that the answers could be tracked back to specific cases and also identification of the organizations product-market i.e. product or service market and served market i.e. B2B market or B2C market.

The second part of the survey regarded environmental decline types identified by Zammuto and Cameron (1985). As the decline types in essence form a matrix, the identification of decline type was broken down into two questions, one regarding the type of decline i.e. change in niche size or change in niche shape and the second question regarding the continuity of decline from continuous to discontinuous. These formulate the two dimensions of the matrix where type of decline forms the Y axis and continuity the X axis.

Position in the matrix was measured with a 7 point semantic differential scale where end points were associated with bipolar labels (Malhotra and Birks 2007, p. 350; Collis and Hussey 2003, p. 184). These labels were change in niche shape and change in niche size for Y axis, and continuous and discontinuous for X axis. This allows obtaining numerical values from qualitative data (Collis and Hussey 2003, p. 184). Therefore, the decline condition of the case could be defined.

The third part of the survey regarded the strategy type of organization in the Miles and Snow (2003) strategy typology. This was measured with a nominal scale as the use of nominal scale enables the responses to be classified to categories which are not comparable with each other but rather equal options. This part of the survey was adapted from Snow and Hrebiniak (1980) as they had already conducted survey research with a nominal scale of the strategy types.

The number of questions used in the survey was relatively modest. The reason for this is that the person who created and answered the survey was the same i.e. the author. Hence, no additional

insight should be possible to be generated with additional questions as consistency should exist between answers.

A complete survey form can be found from the appendix 2. This form has all the three parts of the survey and is an exact duplicate of the form used to conduct the research.

3.3. Collecting the research data

The data collection and analysis follows loosely the case survey research process advocated by Larsson (1993) and Bullock (1986). As the research has been done by only one person, many of the steps in the process were left out. The following paragraphs describe the applicable steps in the case survey research process that were conducted.

The data collection was initiated after the initial research questions were developed and the basis case selection criteria were generated. The initial criteria for case selection rose from the research questions. These criteria were that the context of the case had to be declining industry and that the case had to report success. The cases were collected from all the available major journal article portals available to HSE students and personnel and all the portals were searched until data saturation was reached. The available portals were at that time Google Scholar, EBSCO, Emerald, Jstor, SpringerLink, Proquest, Sage and Science Direct. The collection of data was conducted from the mid November of 2009 until the end of January 2010.

Table 1 describes the keywords used to search the cases, the portals used to search for the cases and the distribution of cases among the sources. The amount of cases is biased towards Google Scholar, EBSCO and Jstor as they were the first portals to be searched. The initial sample amounted to 81 cases that were selected by reading the abstracts of the articles and comparing them to selection criteria mentioned earlier.

	Google Scholar	EBSCO	Emerald	Jstor	SpringerLink	Proquest	Sage	Science Direct
declining industry	11	5	3			2		4
declining industries	4	3	2	15	1			
industry decline	2		1	3		1	1	
market decline		1	1	1				1
declining industry success	1		1					
declining industry success factor(s)	3			1				1
declining industry case		2		1		2		
declining industries case								
industry decline case								
market decline success				1				
market decline case								
declining industry survival		1						
declining industries survival								
<i>Derived from existing sources</i>				5				

Table 1: Distribution of cases among the keywords and search databases

At this point, the survey form was generated to convert the cases into variables; a closer description of the survey can be found from the previous subsection. After the generation of the survey, the cases were coded by using the survey and a closer reselection criterion on the cases were made to drop cases that did not have adequate information. The reselection criteria included that the case had to be a case study as many journal articles initially chosen were not applicable as case studies. Second, the case study had to have a clear description of the declining industry so that the type of decline could be assessed. Third, the case study had to include adequate information to indicate which strategy type performs in the decline condition, and also the case had to have a description of the performance outcome, as many cases only dealt with strategy but not performance. In addition, at this point, the non-academic case studies were dropped to increase the reliability of the case studies.

The reselection and coding shrunk the amount of cases to a third of the original case mass leaving 27 cases with adequate description to generate a completed survey form (see appendix 1 for closer identification of cases). The tight selection criteria were used to ensure quality of the cases accepted for the research. This is exemplified by the fact that the only journals from which multiple studies were accepted were Strategic Management Journal (6 cases) and Long Range Planning (3 cases).

3.4. Methods of analysis

The research data was analyzed on three levels. First, the groups of case studies that employed a certain strategy and a decline condition were analyzed to find similarities and differences between case studies. This was used to draw syntheses of the behavior of strategy types in different decline conditions. Second, each strategy type was analyzed by comparing the groups of cases in each of the decline conditions to draw conclusion on the level of a strategy type. Therefore, synthesis of the behavior of each of the strategy types could be established on the level of strategy type. Third, the strategy types were compared together to formulate conclusions of the behavior of the strategy typology in the decline conditions. This resulted in the higher order outcomes of this research.

The analysis of the data was done in three stages combining multiple methods of analysis. The data was analyzed by conducting pattern matching and cross case synthesis (Yin 2003, p. 116, 133). These two analysis strategies were used because of two main reasons. First, pattern matching functions well in this research because the empirical research aims at testing the research framework presented in the theoretical synthesis, resulting in pattern matching. Second, as the data consists of multiple case studies cross case synthesis can be used to analyze similarities and differences between cases. The next paragraphs describe in more detail the process of analyzing the case studies.

After the initial data set was gathered, the first phase of analysis was conducted. This consisted of reading through all the case studies. By doing so, the cases that did not fit the reselection criteria were excluded from the survey. After reselecting the case studies that were included in the final data set, the case studies were coded by using the survey. By doing so, each cases was assigned a strategy type the organization employed and a decline condition in which the organization operated.

After the case studies were coded using the survey, the second phase of analysis was conducted. The case studies were divided into three groups according to the strategy type employed by the organization. Each of the three groups was analyzed separately. In each of the groups, the analysis started by plotting the case studies into the decline conditions. By doing so, the pattern of distribution of the case studies could be compared to the theoretical framework. After doing so,

case studies in each of the decline condition were analyzed to form a cross case synthesis of the characteristics of each strategy type in each of the decline conditions. These findings of within strategy type differences were then analyzed to achieve an overall understanding of the strategy type in declining conditions and the reasons for success.

After each of the strategy types were individually analyzed, the last phase of analysis was conducted to compare strategy types with each other. This enables comparing each of the strategy types with each other and define how each of the types function in the decline conditions. Therefore, higher level conclusions can be drawn of the success strategies in different decline conditions.

The goal of utilizing such analysis strategy is for two reasons. First, the behavior of the strategy typology as a whole in different decline conditions case be established. This leads into answering the research questions. Second, in order to explain deviation within a strategy type and increase validity, within type analysis is conducted. This enables a more fine-grained analysis of the strategy types.

3.5. Reliability and validity

Yin (2003, p. 34) describes four test to evaluate the quality of any empirical social research. These four design tests are construct validity, internal validity, external validity and reliability. This subsection aims at applying all of these to this study to give a clear picture of the reliability and validity of this research.

The purpose of construct validity is to “establish correct operational measures for the concepts being studied” (Yin 2003, p. 34). Two distinct concepts were chosen to act as the foci of this research and the phenomenon was researched through these lenses. To increase construct validity the survey was built around the decline conditions identified by Zammuto and Cameron (1985) and the way of identifying strategy types were adapted from a survey conducted by Snow and Hrebiniak (1980) of which the other is an original author of the typology. The within group analyses were conducted on the basis of the strategy employed and which decline condition the organization inhabited.

This research utilizes existing case studies as the research data of which all are published in academic journals. A chain of evidence was established as each of the cases can be followed from the combination of words used to find the case and the source, through the analysis and into the findings. This process has been meticulously documented. The only aspect that undermines the construct validity is the key informants were not used to review the results. This is a procedure also suggested by Larsson (1993) and hence is left as a shortcoming when regarding construct validity.

Internal validity established a causal relationship where certain conditions are shown to lead to another (Gibbert et al 2007; Yin 2003, p. 34). This research uses cross case synthesis and pattern matching to enhance internal validity by aggregating findings across cases. This is possible because the data consists of multiple different case studies. The cases are analyzed both quantitatively and qualitatively.

External validity refers to the generalizability of the findings beyond the immediate case study (Gibbert *et al.* 2007; Yin 2003, p. 34). As Eisenhardt (1989) argues, cross-case analysis of four to ten cases can act as a basis for analytical generalization and as this research has in total 27 cases the amount of data is adequate to produce analytical generalization.

Reliability of the research refers to possibility of repeating the case study with the same results (Yin 2003, p. 34). The process of conducting the case survey followed loosely the procedure of conducting case survey research identified by Larsson (1993) and the application of these steps have been explained in the methodology section. Despite this fact, the reliability of this research has been compromised in a sense that the research was conducted by a single person. This is against the suggestions of Larsson (1993) as he notes that case survey research should be done by a research team to eliminate possible bias and that people coding the cases and building the theory should be different to minimize bias. This unfortunately was not possible when conducting this research and hence remains a big shortcoming of this research.

4. Findings

This section gives a general description of the data generated for this research. After this, a closer description of each strategy type and their fit to different decline conditions are made. The analysis of each strategy type is divided into part describing their distribution in the decline environments and a part describing the similarities and differences among the strategy type.

4.1. General description of the data

The survey yielded a total of 27 cases. In two occasions two cases were used to construct one case entity. This leaves a total of individual 25 cases for this research. The case studies were equally distributed among journals. The only academic journal from which multiple case studies were accepted were Strategic Management Journal, with 6 cases, and Long Range Planning, with 3 cases. A closer identification of the cases included in the sample of this research can be found from the appendix 1.

The distribution of cases according to the product-market is heavily skewed towards products as 19 of the cases regarded a product market when compared to only 6 cases from the service market. This may be a consequence of a number of reasons, the major one being the fact that products are tangible and, thus the development or death of a product industry is more concrete as service companies are less tied to production equipment. The distinction between product and service markets were left outside the scope of this research due to the small size of the sample. In addition, evidence of the difference between product and service are inconclusive as both views have proponents (see for example Fein 1998, and Goldfarb *et al.* 2007).

The sample shows a bias towards B2B markets, as 15 of the cases regard B2B markets and 10 cases regard the B2C market. Both of these dimensions however were left outside the scope of analysis due to the small sample size.

Figure 5 depicts the distribution of cases among the different decline conditions and different strategy types. In the figure, different strategy types have been distributed among the decline conditions based on the survey results.

Type of change in the niche configuration	Continuity of environmental change	
	Continuous	Discontinuous
Niche size	7 defenders 2 analyzers EROSION DISSOLUTION	2 defenders 5 analyzers CONTRACTION COLLAPSE
Niche shape	2 analyzers	1 defender 3 analyzers 3 prospectors

Figure 5: Distribution of strategy types in different decline environments

Decline in the environment was broken down into two components, the type of change and the continuity of change. The type of change was skewed towards change in the niche size, as 16 out of the 25 cases had a decline in the size of the niche. This can be, at least to some extent, explained by the fact that declining industries are perceived as those in which the niche size decreases, rather than those where the niche shape changes. This might be because changes in niche shape are perceived more often as evolution or development of the industry. As a result, the way how the data was collected may not have been supportive towards cases where the change occurs in the niche shape rather than the niche size.

The continuity of change was quite evenly distributed in the sample as continuous decline was experience in 11 cases and discontinuous decline in 14 cases. This indicates that the sample represented quite evenly the different types of continuity in a niche.

All the four decline conditions were represented in the sample. Among these, erosion and collapse were well represented as they represented 16 out of 25 cases. Dissolution and contraction, on the other hand, were not as solidly represented as cases in which change occurred due to changes in niche shape were only 9 cases.

Three of the four strategy types were represented in this sample. Out of these three, defenders and analyzer were foremost present, as the sample included 12 analyzers and 10 defenders. The sample indicated only three prospectors and not a single reactor. In all the case studies, the successful case company held a clear direction and therefore no reactors were found from the data set.

To conclude the general description of the data, it is evident that the amount of data may not be applicable for sole statistical analysis. Although, for the purposes of doing meta-analysis, which involves quantitative as well as qualitative analysis, the sample size is adequate.

4.2. Strategy types in different decline conditions

The 25 cases included in this study are discussed here separately according to the strategy type employed. This analysis is split into an analysis of the strategy types and the conditions where they appear in the sample. This is followed by a within group analysis of differences in order to formulate a better understanding of the groups and their success in different decline conditions.

4.2.1. Defenders in declining industries

Defenders are organizations which gain competitive advantage by occupying a niche in the market that they protect by being efficient to prevent competitors from entering the niche (Miles et al.

1978). This is, of course, a portrait of an extreme case as the defenders in the sample demonstrated a variety of ways of employing this strategy.

The sample had in total ten cases in which defender strategy was employed to succeed in declining industry. Figure 6 depicts the distribution of these cases between the different decline conditions.

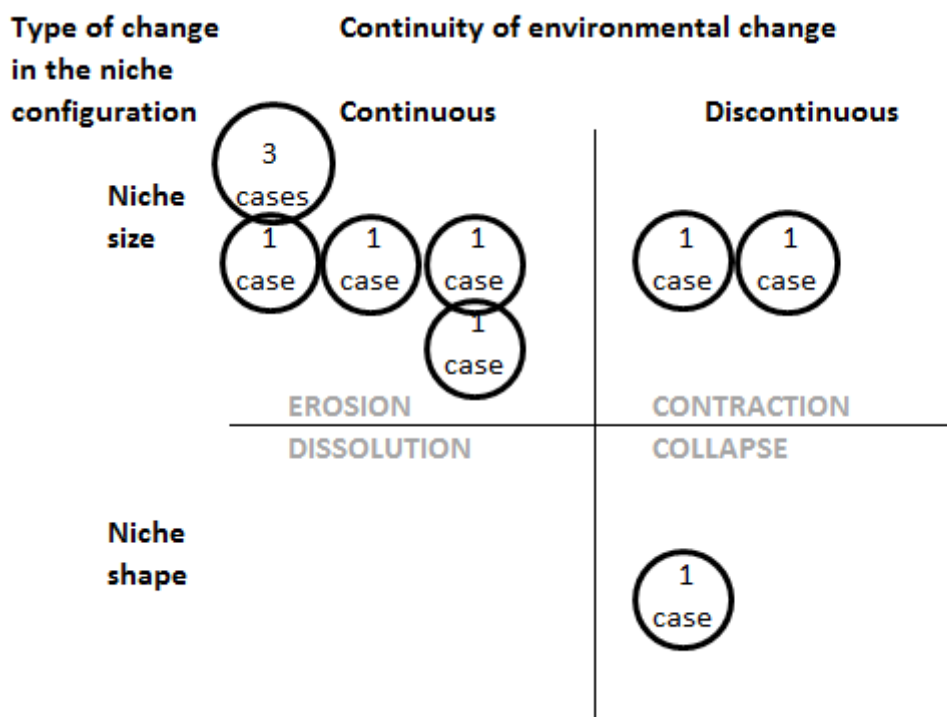


Figure 6: Distribution of defender strategy type in the decline conditions

As can be observed from the figure 6, in nine out of the ten cases, the decline was due to the changes in the niche size. This can be accounted as strong evidence that defenders are able to succeed in conditions in which change is due to the change in the niche size. Change in niche size results in an intensified competition and thus the exit of some of the organizations (Ghemawat and Nalebuff 1985, 1990). As defenders are organizations that define their entrepreneurial, engineering and administrative problems around securing a domain in the market by defending it with efficiency, they fit well in conditions where total carrying capacity of the niche decreases (Miles et al. 1978). In this sense, the distribution of cases appears to favor the decline in size of the

niche rather than change in niche shape. This is congruent with the notion of Miles et al. (1978) that defenders exhibit tendency to succeed in stable environments.

The figure also depicts that seven of the cases exemplify continuous decline, while three experience discontinuous decline. This emphasis of cases on the side of continuous decline is also posited by Miles et al. (1978) as defenders have a tendency to succeed better in stable environments and, furthermore, that the primary risk of defenders is that they are unable to respond to major changes in the market environment. In this sense the distribution of cases regarding the continuity of change is congruent with the notion of Miles et al. (1978) that defenders exhibit tendency to succeed in stable environments.

As the total number of cases is low, within group comparisons give additional depth to the analysis. For these purposes, the cases will be divided into three distinct groups based on the decline condition in which the strategy is employed.

The seven cases that are positioned in the erosion quadrant share similar features. All of the cases, except one case, depict a rather successful adaptation to the decline of the niche. The only case, in which success is not as straightforward, is a case of Jesuits in the USA and the declining church membership. This case describes how the Jesuits of U.S. provinces were able to sustain their operations by removing overlapping operations and, thus, increasing efficiency despite losing members. Among the rest of the cases, success had been attained through economies of scale, high quality offering, cost cutting and evading diversification. These all represent the choices defenders have. When looking at the cases, they portray a pattern in which diversification is either not possible or it would lead to decreased performance. Therefore, it appears that in these cases, focus and efficiency has been the most lucrative option.

The three cases that fall outside the erosion quadrant exemplify cases where success has not been as explicit but rather success in relation to environment from which others have or are exiting. The two cases that portray contraction of the industry, which is discontinuous change in niche size, are quite similar. First of the cases portrays how British steel casting industry changed through a series of declines in orders and government subsidies for exit. Organizations that stayed in the industry were the ones that were not diversified. They were able to survive and succeed as population density decreased when diversified organizations exited. The second case concentrates on the Israeli electronics industry where decline was caused by local recession diminishing the local

demand, while at the same time the global demand was also experiencing decline. The successful Israeli organizations defended their domain and wait that more space would be generated to the niche. In both of the cases the only option left for the companies in the niche was to defend their own domain and hope that space would be generated to the niche so that the companies could continue their operations more successfully.

The one case in the collapse environment in which niche shape changes discontinuously the market has traditionally been volatile. The case regards international fur industry concentrating on the Greek niche of Kastoria and Siatista. In this case, the collapse of the niche results from changing preferences from fur to other kind of materials, as well as shifting carrying capacity of the niche to low cost countries in Asia. For the moment, the Greek niche has been able to survive by increasing efficiency. Despite this, the future of the niche is left open as efficiency might not lead to success in the future due to low cost competition from Asian countries. This could lead the Greek niche to be driven out of the market.

In contrasting the three cases outside the erosion environment to the cases in the erosion quadrant, a significant difference seems to emerge. It appears that defenders are more fit to the environment of erosion than other decline conditions, as they appear to perform better in conditions of erosion. This statement is supported by two details that arise from the data. First, more than two thirds of the cases are in one quadrant.

Second, when the cases were compared to each other, cases in the erosion environment tended to portray more of a success when compared to the cases in other decline conditions.

Organizations in the erosion environment were able to continue or increase their operations by increasing efficiency and focus on their domain, whereas organization in other environments did not have other choices available than to defend the domain that they occupy and wait for more space to be generated into the niche.

Together these finding support the notion of Miles et al. (1978) that defenders succeed in environments where change is moderate, enabling defenders to fully utilize their capability to be efficient. *Therefore, it is evident that defenders can be successful in declining industries, and in particular have a tendency to succeed if the decline is gradual so that they have the opportunity to leverage their efficiency to generate success when competition intensifies* (Zammuto 1988).

4.2.2. Prospectors in declining industries

Prospectors are practically polar opposites of defenders as they gain their competitive advantage by finding and exploiting new markets (Miles et al. 1978). This is of course an ideal profile of a prospector but generally they can be defined as companies that are innovators in product and market development.

The sample had three prospectors. For this reason, nothing conclusive of the strategy type cannot be said, as their number falls under the minimum amount of cases suggested by Eisenhardt (1989) for drawing analytic generalizations. Despite this, the three cases will be examined to achieve an understanding of how the prospectors behave in declining environments. Figure 7 depicts the distribution of the prospectors in the decline conditions.

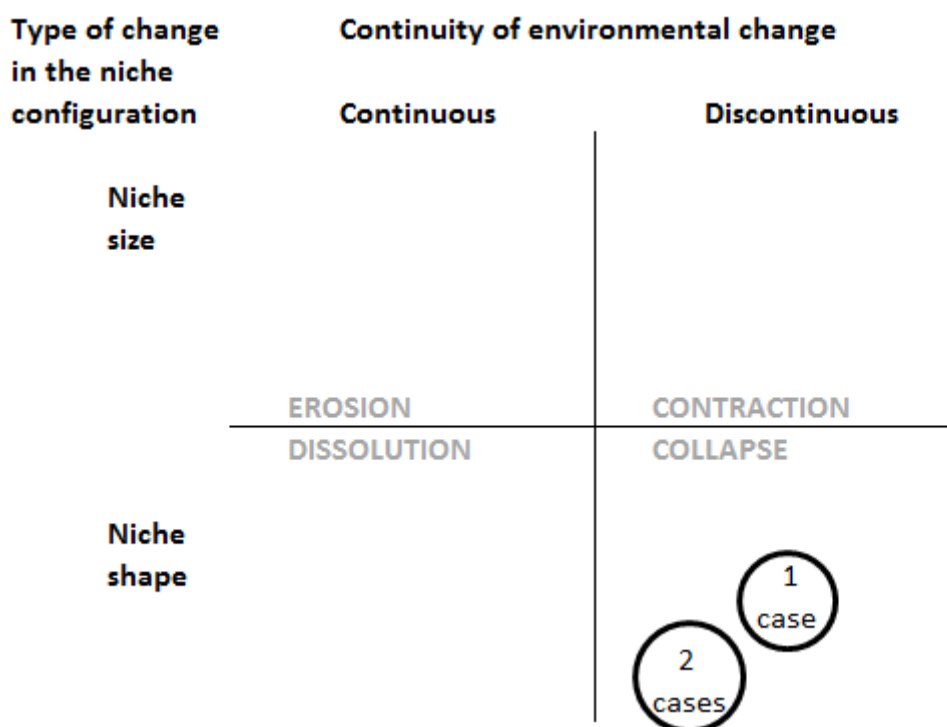


Figure 7: Distribution of prospector strategy type in the decline conditions

The lack of cases supports the portrait of a prospector as they actively try to alter and create markets and, thus, it would be unlikely that they would end up remaining in a declining industry. Rather, prospectors would be the ones responsible for the decline.

On all of the cases the change occurs in the niche shape. This is congruent with the environment where prospectors strive. If the change would occur in the niche size, the prospectors would be cornered by more efficient organizations in the niche and driven out of the market instead, when the change occurs in the niche shape, prospectors are able create or follow this change. As prospectors define their entrepreneurial, engineering and administrative problem solving around mobility of the organization and innovation; environment where niche shape changes tend to be more suitable for them (Miles et al. 1978).

All three of the cases also exhibit discontinuous change. This also follows from the with the environmental requirements of prospectors, as Miles et al. (1978) posit that prospectors strive in more dynamic conditions than all other strategy types in the typology. If the change would be continuous, prospectors would not be able to succeed because they would continuously be driven out of market by, for example, analyzers that are more effective. As prospectors define their entrepreneurial, engineering and administrative around mobility of the organization and innovation, discontinuous environment change tends to be more suitable for them (Miles et al. 1978).

Based on the distribution of the cases regarding the type of change in the niche and continuity, the environment of collapse appears to fit this strategy type best. All three of the cases that exhibit a prospector also portray them inhabiting this decline condition. The discontinuous change in niche shape enables the prospector to exploit its capabilities to change form and use its capabilities to locate and exploit new market opportunities.

A closer examination of the three cases was done to gain more in-depth insight of the cases. A first similarity between the cases concerns as all the cases focusing on technology intensive industries. Two of the cases portray a case study of a high-tech organization and the third portrays a case of medical-surgical hospitals and their transformation through changes in technology.

Two of the three cases emphasized corporate entrepreneurship as a key to reinventing the organization and the domain. In the case of medical-surgical hospitals the niche constitutes four counties in the San Francisco bay area and entrepreneurial orientation was described as a key in reinventing the organization and its domain. The other case described coping with decline in dynamic environment with the use of corporate entrepreneurship and recombinative

organizational form. Both of these exhibit a case in which the adaptation to the evolution of the environment is absorbed by proactive entrepreneurial orientation.

The third case describes the migration of prior radio producers to TV producers in the television production in the U.S. consumer electronics industry. The case portrays how organizations prior in the radio production took over the television production as they were innovation oriented by nature. When comparing them to other entrants to the television production niche, these firms exhibited greater levels of innovation as they already had functioning R&D departments that were geared towards market generation.

Even though all these case studies of prospectors fall under the decline condition of collapse, all the case organizations seemed to do financially well as the market did not disappear but was rather replaced by a new one. Two of the cases portray exceptional financial performance as one of them focuses on top performing Fortune 500 high-tech organization and the other case regarded prior radio producers that had greater market shares and longer survival rates than other organizations in the industry.

The three prospector cases exemplify two types of prospectors. The prior radio producers emphasize product innovation while the medical-surgical hospitals as well as the case regarding recombinative origination form gain competitive advantage through reconfiguring the form of the organization.

Although generalizations from such a small number of cases cannot be made, the prospector cases have similarities that are congruent with the archetype of a prospector described by Miles et al. (1978). *All the cases reside in the collapse environment which is congruent with the notions that prospector inhabit dynamic environments in which they can utilize their ability to locate and exploit new market opportunities* (Miles and Snow 2003; Zammuto 1988). One reason for the lack of prospectors in the sample is that in the extreme case prospectors should not even be found from declining industries as they should be the ones generating the change through inventing new niches.

4.2.3. Analyzers in declining industries

Analyzers are organizations that are combinations of defenders and prospectors. These organizations aim at maximizing opportunities for profit while at the same time minimizing risks (Miles et al. 1978). The sample had in total 12 analyzers. The figure 8 depicts the distribution of these cases between the different decline conditions.

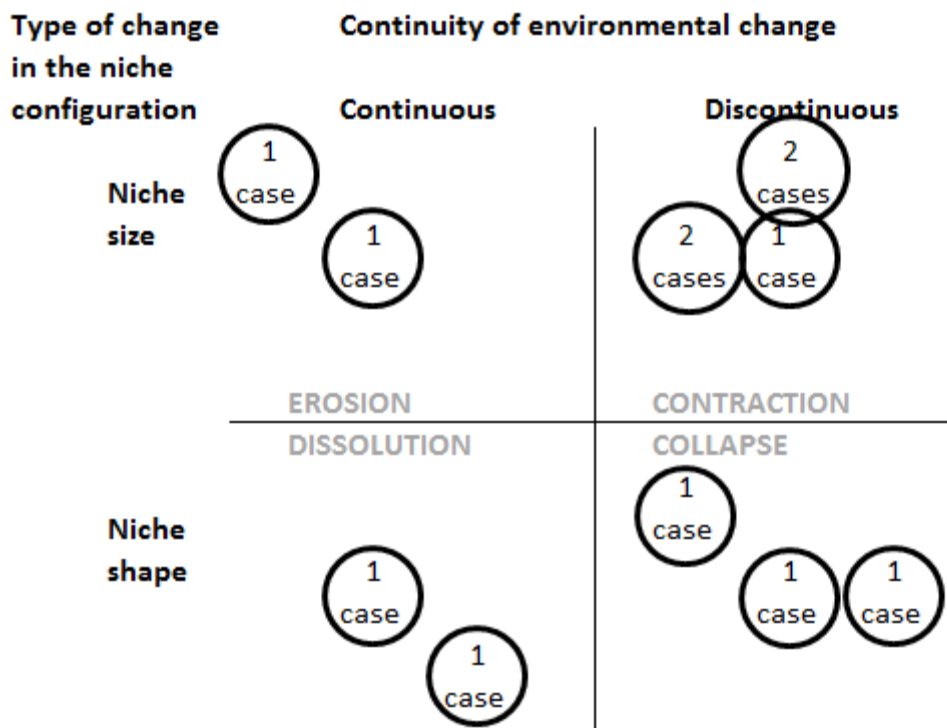


Figure 8: Distribution of analyzer strategy type in the decline conditions

When looking the distribution of analyzers regarding the type of change in the niche, the cases are distributed quite evenly in the matrix. For this reason, it is viable to postulate that since analyzers are a combination of defenders and prospectors, they can strive in both types of environments as they are able to draw competitive advantage from efficiency but also from the ability to follow changes in the market (Miles et al. 1978).

When regarding the distribution of analyzers based on the continuity of change, the number of cases is skewed towards discontinuous change as four of the cases reside in the side of continuous change and eight on the side of discontinuous change. It is here viable to postulate that as

analyzers are a combination of defenders and prospectors they can strive in changing environments better if they can leverage their capabilities to be both efficient and innovative.

The distribution of analyzers in all of the quadrants implies that they are able to draw competitive advantage from multiple sources and, thus strive in different kinds of environments. Although it appears that they exhibit a tendency to operate in conditions of discontinuous change.

A closer examination of the cases was made where the cases are distributed into groups based on the quadrant where the case resides. The within group analysis can shed light into the reason behind the success of analyzers in all of the decline conditions and how the competitive advantage is created in each of the decline conditions.

The two cases in the erosion quadrant portray success in steadily declining industries. The first case regards the decline of MBA programs in North America concentrating on Canada and specifically the domain of University of Toronto. In this case success is attained by leveraging existing knowledge in similar niches such as in executive MBA programs and non-degree executive programs to stabilize the financial situation of the organization. In doing so, the university is at the same time able to maintain their core operations of MBA programs by supplementing them with other programs to enhance cash flow. The second case regards the US tobacco industry from 1950-1979 concentrating on the most successful organizations. The industry itself is in steady decline but the successful organizations defend their core operations by forming lobbying groups to protect their core business, expanding their product lines to cover multiple niches and to penetrate foreign niches as well. These operations are supplemented by diversifications to other segments of consumer goods where they can leverage their existing capabilities.

These two cases share similar features in two ways. First, the organizations diversify to related niches in order to stabilize their operations and spread risk. Second, in both of the cases the organizations leverage their core competencies to related niches where they seek stability. It appears that when facing erosion, analyzers have a tendency to diversify to related niches to stabilize their operations and to generate an exit plan in case one should be needed in the future.

The five cases in the contraction quadrant portray success in niches where the niche size decreases discontinuously. First of all, three of the cases are positioned in or in close proximity of the defense industry. The two other cases represent the Japanese aluminum industry and U.S.

collectibles industry, concentrating on baseball card niche. All the cases share common traits such as they all portray how the organizations spread risk by diversifying. All the cases in or in proximity to defense industry share a pattern of leveraging core competencies to diversify either within the industry or to industries in close proximity. In the case of baseball cards, risk is spread by leveraging core competencies by issuing new brands to cover more niches and spreading the release of products throughout the year. The last case concerns Japanese aluminum smelting niche in the aluminum industry where risk is shared by group formation and loss sharing among the organization occupying multiple niches. All the organizations have activities related to the aluminum smelting niche which indicates that despite the aluminum smelting niche is declining the corporations wish to control large parts of the value chain.

The five cases are similar in two ways. First, all the organizations diversify to decrease risk, either within the industry or beyond the industry. Secondly, in four of the five cases the organizations diversify by leveraging their core competencies. It appears that when facing contraction, analyzers have a tendency to diversify to related fields to stabilize their operations.

Two cases among the analyzers inhabit the dissolution quadrant in which the niche shape changes continuously. The first case is a historical analysis of the British cotton production where foreign competition resulted in a steady change of the niche, as foreign competitors changed the type of activities the niche sustained. In this niche, the organizations that performed best were the ones that were vertically integrated, had diverse product range and multiple plants. These organizations were successful due to their ability to modernize equipment, increase product differentiation and do mergers and acquisitions within the industry. The second case regard the niche of single sex boarding schools in which demand of customers is transforming from boarding schools to day schools and hence the niche shape changes; this is only case where the type of change was explicitly stated according the typology of Zammuto and Cameron (1985). In this case the focal organization diversified to day schooling and hence followed the change in niche shape while keeping its core business which attracted foreign students.

Both of these cases exemplify organizations that are able to follow changes in the environment by diversifying according to the needs of the new developing niche. Also, in both of the cases, the organizations diversify by leveraging their core competencies. It appears that when facing

dissolution, analyzers have a tendency to diversify to the newly emerging niche to continue their operations successfully.

Three cases among the analyzers inhabit the collapse quadrant in which the niche shape changes discontinuously. The first case regards U.S. hardwood lumber and component manufacturers' niche in the U.S. lumber industry and, in particular, how Chinese imports have displaced U.S. furniture manufacturers. Despite the collapse of their niche in the furniture industry, these companies have been able to shift their focus to manufacturing flooring, kitchen cabinets and exporting the goods they used to sell to domestic manufacturers generating new niches. This case study illustrates ways in which the companies were able to steer their operations to diversify to related niches when their primary niche collapsed.

The second case regards U.S. railroads and how, in particular, formerly regulated industry was deregulated and as a result new niches in the industry were generated. In this case those organizations that managed to change their strategy so that it was aligned with the new environment outperformed others. In this case the emphasis on innovation was the most profitable strategy.

The third case handles the change of New Zealand footwear manufacturing from a protected niche into a competitive one that was invaded by foreign organizations. The successful companies entered retailing in order to diversify their operations and gain vertical integration, but at the same time production capabilities were enhanced and organizations started to export their goods to penetrate foreign niches.

All the three case exemplify organizations that are able to follow changes in the environment by diversifying according to the needs of the new developing market. These three cases exemplify organizations that are able to align their strategy to the rapid change of the environment and survive by changing form.

The analyzers in different decline conditions exemplify a few similarities and differences when within group characteristics are analyzed. First, a difference exists in how diversification is used between the two different types of change. In all of the cases in which niche shape changed, the companies used diversification to minimize risk. In cases demonstrating niche shape changes, diversification was used to move to new niche that was developing. This indicates that depending

on the type of change in the environment, analyzers can leverage their capability to diversify in two different ways.

Second, in nine of the twelve cases diversification was carried out within the changing industry. This indicated that while analyzers are able to diversify their operations, they seldom diversify outside the industry where they operate. In addition, in two of the remaining cases the organizations diversified by leveraging their current capabilities in a similar industry. This indicates that while analyzers are able to diversify, they are constrained by the choices they have made in the past. This is consistent with the argument of Miles et al. (1978) that organizations are limited to the choices that top management view effective, which in this case hold substantial lock in to the declining environment as the organization able to succeed in it.

To conclude the analysis, *it appears that analyzers in declining industries are able to inhabit all the decline conditions by leveraging their ability to both focus and diversify at the same time.* These cases exemplify the strategy type of analyzer as the organizations in the sample try to minimize risk while maximizing opportunity for profit. Although, in this sample, this stance is dualistic as the organizations which niche size decreases use diversification to minimize risk while organizations whose niche shape is under transformation use diversification to maximize the opportunity for profit. In addition, these cases exemplify how analyzers solve their primary risk of not being able to move quickly due to their dualistic focus in both exploration and exploitation. In the sample, the organizations have solved this problem by diversifying within the same industry or leveraging their current capabilities in a similar industry.

4.2.4. Reactors in declining industries

Reactors are organizations that do not exhibit a proactive stance towards their environment and do not have a clear strategic direction (Miles et al. 1978). Reactors can exist only in protected environments where no change occurs. When faced with changing environments reactors either have to move towards a consistent strategy or perish (Miles et al. 1978).

The sample features no reactors. Although this is in accordance with suggestions of Miles and Snow (2003) as declining industries are not very welcoming, although it would be a non sequitur

argument to conclude anything on the basis that it is not proven directly by the data. Therefore, although the lack of reactors does not prove their inability to succeed in declining industries, is this argument supported by the typology.

5. Discussion

This aim of this section is to discuss the findings presented earlier. Aim of this section is also to draw together the findings that can be contrasted against the theoretical framework presented earlier. In addition, these findings are contrasted to existing studies of the strategy typology to uncover similarities and differences between the functioning of the typology in declining industries and other contexts.

5.1. Miles and Snow strategy types in declining environments

In total, 25 cases were used to analyze the strategies organizations use in order to succeed in declining industries. The figure 5 depicted the distribution of cases among these decline conditions. This figure supplemented with the within group analyses, opens the field successful strategic choices in different decline environments to an analysis of the fit of different strategy types to different decline conditions. Through this analysis, these findings can then be contrasted to the indications that were presented in the theoretical framework of the fit of different strategies to different decline conditions.

Defenders were represented in three of the four decline conditions identified by Zammuto and Cameron (1985), although seven of these cases resided in the condition of erosion that suggested their fit to this type of decline. The within group analysis revealed, defenders in the condition of erosion were the only ones that exemplified true success. This indicates that defenders demonstrate a tendency to fit with the decline condition of erosion, as in the decline condition where defenders were most prominent to succeed according to the data.

Therefore these findings are congruent with the postulations made in the theoretical framework. As it was postulated that because defenders require an environment where major shifts do not occur, the decline condition of erosion would fit them best.

Prospectors were represented in only one of the decline conditions identified by Zammuto and Cameron (1985). All of the cases resided in the condition of collapse which indicated the fit between this strategy type and the environment. The within group analysis revealed that organizations in this decline condition exemplify success. This indicates that prospectors demonstrate a tendency to fit with decline condition of collapse, as that is the only decline condition where prospectors were found in the data. Despite all the cases were in the condition of collapse, the small number of cases undermines these findings.

These findings are congruent with the postulations made in the theoretical framework. As it was therefore assumed that because prospectors' main advantage lies in their capability to create change as well as rapidly respond to change, they would require an environment where change is rapid.

Analyzers were represented in all of the decline conditions identified by Zammuto and Cameron (1985). The within group analysis uncovered the reasoning behind this. It appears that they are able to leverage diversification for two purposes. When niche size changes they diversify to stabilize the operations of the organizations and when the niche shape changes they diversify to expand to the new niche that is taking shape. This indicates that analyzers demonstrate a tendency to align their selves to all the decline conditions by being able to leverage different aspects of their hybrid domain in different environments.

These findings contradict the postulations made in the theoretical framework as it was assumed there that analyzers are able to succeed only under the condition of dissolution in which they can leverage their hybrid domain. Instead, according to the data, they are able to inhabit all the decline conditions as they are able to shift balance according to the environment.

Reactors were not present in the data. This is congruent with what was postulated in the theoretical synthesis. It would be tempting to conclude that the data supports the theory but the argument would be a non sequitur and hence no such argument will be made.

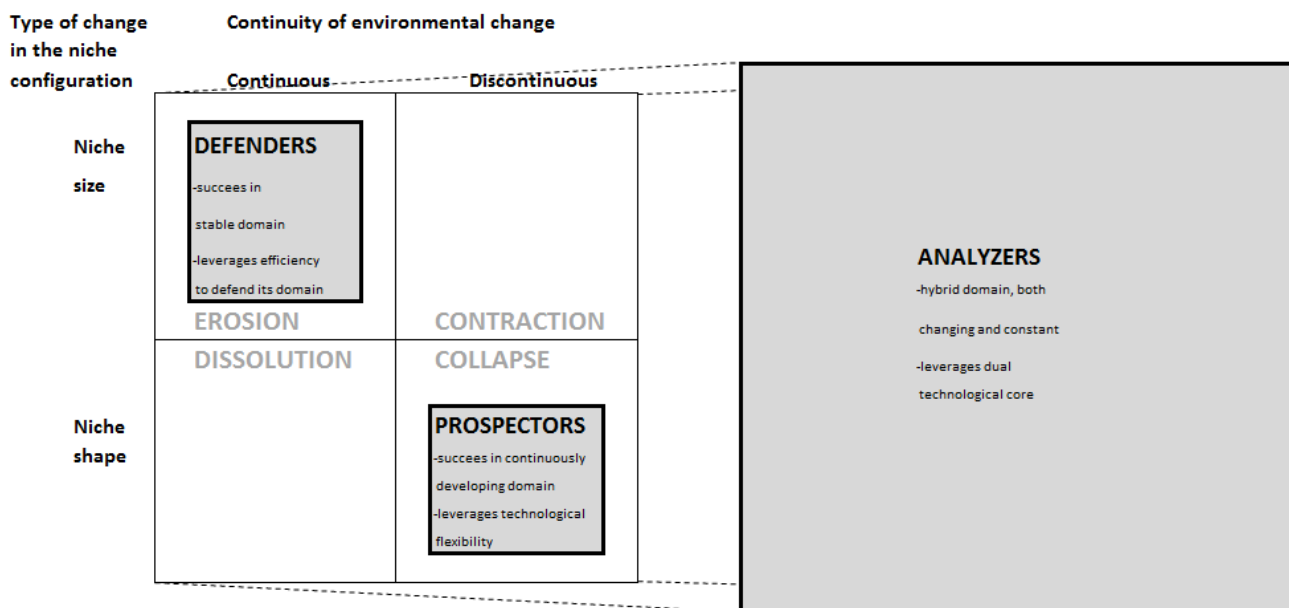


Figure 9: Revised version of the strategy-environment coalignment framework based on findings

Together, these findings enable adjustment of the theoretical framework to the empirical findings of this research (figure 9). The findings of this study support the theoretical framework regarding all strategy types except the analyzers. Analyzers appear to be able to leverage different parts of their hybrid domain in different decline conditions enabling them to succeed in all of the decline conditions identified by Zammuto and Cameron (1985). *Therefore, whereas defenders and prospectors succeed in distinct decline condition, the strategy type of analyzers can be augmented to cover all the decline conditions.* Based on this, figure 9 depicts a revised version of the research framework that has been adjusted according to the empirical findings of this research.

As the cases regard only successful organizations it can be implied that defenders exhibit a tendency to succeed in erosion and prospectors exhibit a tendency to succeed in collapse. Analyzers, as a combination of these two forms, have a tendency to succeed in all the decline conditions as they are able to modify their hybrid domain to fit the current environments.

It must be emphasized, that the strategy types of defenders and analyzers were emphasized as they together represented 22 out of the 25 cases. This indicates that successful organizations

operating in declining industries exhibit ties to the niche that cannot be easily broken even when the niche declines. This is natural for defenders as they aim to seal and protect a domain in the market and with their largest risk of inability to respond to major changes in the market, which is also well exemplified by the data (Miles et al. 1978). Analyzers, on the other hand, have the ability to diversify as they are a combination form of defenders and prospectors (Miles et al. 1978). Despite this, the analyzers in the sample were not generally able to diversify beyond the industries they operate in. This indicates that both of the strategy types exhibit path dependency, which at least to some extent can be explained by the notion that all the cases were successful so dramatic changes, were not necessary, as following the old path maintained their success.

On the other hand, the amount of defenders and analyzers may be overemphasized because of the nature of the two other strategy types. Prospectors, according to their ideal definition, should not even be present in the sample as they strive to create and exploit new market opportunities. This is maintained by the data, as the three cases that did not exemplify strategy type of an analyzer or defender were labeled as prospectors as they inhabited the environment type of collapse. In addition, reactors were not present in the sample as reactors either perish or assume a consistent strategy when they are faced with a changing environment (Miles et al. (1978).

The emphasis of analyzers and defenders can also be due to way how data was collected. As prospectors inhabit environments where change is rapid, the change in niche can rather be called evolution than decline which helps to explain the low number of prospectors in the sample.

5.2. Comparing existing literature to the empirical finding of this study

Snow and Hrebiniak (1980) in their research of strategy, distinctive competences and organizational performance argue that as different types of organizational strategies exist simultaneously in the same industrial environment, the effects of natural selection is hindered. This research contradicts these findings as distinct types of strategies appear to be successful in different decline conditions. This implies that although variation exists as Snow and Hambrick (1980) state, selection and retention follow a distinct path (Aldrick 1979, p. 27).

This research, as well as the one done by Snow and Hrebiniak (1980), share an important common feature. Analyzers in both of the studies exemplify various sources of competitive advantage depending on the context. This research, therefore, both contradicts and supports the suggestions of Snow and Hrebiniak (1980).

In Hambrick's 1987 research of the Miles and Snow typology, he studied defenders and prospectors in innovative and non-innovative growing and mature industries. In his study, the prospectors outperformed defenders only in innovative industries. This is supported by current findings, as prospectors were present only in the condition which was rapidly changing.

Hambrick (1983) also suggested that in general the superior strategy was neither of the extreme types but rather the middle type of analyzer. This is supported in the light of this research as the analyzers appear to be able to leverage their hybrid domain differently in different decline conditions, enabling them to succeed in all of the four different decline conditions.

In the context of this research, contradictory evidence has been presented of whether organizational adaptation is managerially or environmentally derived. This is congruent with Hrebiniak and Joyce (1985) arguing that classifying change solely to either of these categories is misleading. In this research, a clear distinction exists among the two types of change. Successful organizations in niches in which the niche size changes do not try to alter the trajectory of decline but rather take it as granted and either hold their position in the niche or diversify to related industries, therefore enhancing the pattern of decline. On the other hand, successful organizations that operate in niches where the niche shape changes, aim at both changing the industry and following such change, enhancing the pattern of niche shape change. In light of these findings, choice is both a cause and a consequence of the environmental condition in which the organizations operate as successful organizations drive the niches to certain directions. This is consistent with the suggestions by Hrebiniak and Joyce (1985), who postulate that choice is both a cause and a consequence of environmental influences that organizations face.

Originally, a central premise of the typology was that the choice of defender, analyzer and prospector strategy type can lead to effective performance, when the types are properly implemented (Zahra and Pearce 1990; Miles *et al.* 1978). This has received both supportive and contradictory findings (Hambrick 1983; Zajac and Shortell 1989; Smith *et al.* 1989; Zahra and Pearce 1990). In the light of this research, analyzers appear to be able to succeed in all decline

conditions when the strategy type is properly implemented, supporting this premise. Defenders and prospectors do not appear in all of the decline conditions and therefore contradict this premise. Therefore, this study contradicts the aforementioned premise, as two of the three strategy types were not able to succeed in all of the decline conditions.

It appears that while some of the findings are unique, the findings exhibit a tendency to be similar to those presented in earlier studies regarding the strategy typology. This implies that while declining industries differentiate from other industries, as their carrying capacity decreases, correct alignment of strategy and environment leads organization to success, despite the hostile nature of the environment.

6. Conclusion

This research started out with a broad research question of the kinds of strategies that lead organization to success in declining industries. This problem was broken down into three distinct research questions which will be examined here one by one to formulate a conclusion for this research.

The first question regarded the array of strategies that are successful in declining industries. The Miles and Snow (2003) strategy typology was used to exemplify different strategy types that organizations can assume.

It appears that when an organization has a proactive stance towards its environment it holds a change of succeeding in a declining industry. This is exemplified by the fact that all strategy types except reactors were able to succeed in declining industries. This is also supported by Miles et al. (1978) as they note that reactors are the only strategy type that is reactive towards its environment and that when it faces changing environments it will either perish or assume consistent form of strategy.

Now, it has been established that three strategy types can succeed in declining industries, it is possible to make conclusions of the second research question. The second research question regards the positioning of success strategies in declining industries. To portray different decline

conditions the typology of decline conditions by Zammuto and Cameron (1985) was used. *It appears that different strategy types have different kinds of tendencies to succeed in different decline conditions.* Defenders have a tendency to succeed in decline conditions where the decline is continuous and where the niche size diminishes. This is also supported by Miles et al. (1978) who postulate similar behavior for defenders.

Prospectors exemplify a tendency to succeed in decline conditions where the niche shape changes discontinuously as they are able to follow changes in the niche and also create such change. This is consistent with the suggestions of Miles et al. (1978) as they state that the prime capability of prospectors is finding and exploiting new market opportunities.

Analyzers exemplify a tendency to succeed in all of the decline conditions, as they are able to leverage their hybrid domain differently in different decline conditions. In decline conditions where the niche size decreases, they diversify to enhance stability of their business. When faced with situations in which the niche shape changes they tend to diversify to the new emerging niche to accomplish congruence with the new emerging niche. These results are congruent with Snow and Hrebiniak (1980) as their research implied that analyzers exemplify various sources of competitive advantage. It is also congruent with the notions of Hambrick (1983) who reached an outcome that analyzers in general are the most successful for of strategy.

As the three successful strategy types have been positioned to the field of decline conditions, it is possible to proceed into making conclusions regarding the third and final research question. The third question regarded how the strategy types as a whole are aligned to the decline condition.

A pattern emerges among the three successful strategy types. The extreme strategy types inhabit decline conditions that are at the two opposite ends of the spectrum. Defenders succeed in decline conditions in which the decline occurs steadily and the niche size decreases. Prospectors, on the other hand, succeed in the opposite decline conditions as they succeed when niche shape changes discontinuously. Behaviors of both of these types are congruent with the suggestions of Miles et al. (1978) regarding the environments where the different strategy types succeed. Analyzers, strategy type that is a combination of the two extreme types, can succeed in all the different decline conditions as they are able to leverage their hybrid domain differently in different decline conditions. Therefore, depending on the decline condition, analyzer can succeed in different ways.

To conclude, the research was able to address all the research questions and yield outcomes that signify the different sources of competitive advantage in different decline conditions and among the different strategy types. In addition, patterns emerged among the different strategy types in different decline conditions. As such, it can now be concluded that research yielded successful process with distinct outcomes.

6.1. Theoretical implications

This research has extended the application of Miles and Snow typology to declining industries that were classified by the typology of decline conditions by Zammuto and Cameron (1985).

Theoretically the research has produced a few implications to the study of the Miles and Snow (2003) typology.

First, the research has yielded similar outcomes as those suggested by Snow and Hrebiniak (1980) and Hambrick (1983), as analyzers appear to be a superior type of strategy as they can leverage their hybrid domain differently according to the decline condition. This research is also congruent with Hambrick (1983) as the research implies that innovators prosper only in rapidly evolving industries. On the basis of these outcomes, the behavior of different strategy types in declining industries are similar to other industries. Therefore, while the context of declining industries differs from other context due to its hostile nature, the successful strategies do not deviate from other contexts.

Second, a central premise of the typology is that defender, analyzer and prospector strategy types can lead to effective performance, when the types are properly implemented (Zahra and Pearce 1990; Miles *et al.* 1978). This has received both supportive and contradictory evidence (Hambrick 1983; Zajac and Shortell 1989; Smith *et al.* 1989; Zahra and Pearce 1990). This study partially contradicts this premise, as only analyzers were able to succeed in all the decline conditions, whereas defenders and prospectors were able to succeed only in certain decline conditions.

This research also strengthens the argument of Hrebiniak and Joyce (1985), who argue that choice is both a cause and a consequence of environmental influence. This research suggests that the type of decline is both caused by the successful strategic choices and a consequence of these

choices. Therefore, successful strategies drive the niche to either a direction of formulation of a new niche or the death of the current niche.

6.2. Managerial implications

The first and most relieving managerial implication is that it is possible to succeed in declining industries. For most of managers even the thought of operating in such environment is scary. Hence, hopefully this research can raise hope and illuminate the possibilities for success in declining industries. As Ghemawatt and Nalebuff (1990) have stated, more than 10% of the United States manufacturing output in 1977 was generated by a declining industry. Hence declining industries should rather be seen as an opportunity where one can succeed if the organizations strategy is configured in a correct manner.

What is managerially important in this research is that different strategy types succeed in different kinds of decline conditions. This implies that managers leading organizations operating in declining industries should do two kinds of things. First, they should try to establish the kind of decline the organization is facing, and, secondly, reconfiguring strategy to comply with the requirements of the environment to achieve strategic fit. This however is not as easy as it may sound, as Miles *et al.* (1978) have also stated that breaking the pattern of behavior is very hard as managers tend to respond similarly to changes.

Despite the positive outcomes of this research, this research reported only success and hence does not tell anything about the failure rate in such industries. Therefore the success in these kinds of environments is in no way guaranteed. Success, even with a correct strategy, cannot be guaranteed in any way.

To conclude, although this research has presented possibility of success in declining industries, these findings should be taken with a precaution as declining industries are environments where by definition the market is diminishing. Despite this, the declining industries should not be feared as they represent a substantial portion of for example manufacturing industries. Hence, when faced with such conditions the organizations should ensure fit between the strategy of the organization and the declining industry and continue operations accordingly.

6.3. Limitations and suggestions for further research

This research has three prime limitations that have to be stated explicitly. First, the methodology used to conduct this research is primarily aimed to be done by a research team. This is due to two reasons. First, to increase reliability of coding the persons coding the cases and those designing the theory should be separated to minimize coding bias. Secondly, the coding should be done by multiple raters to increase reliability of the coding. These problems however were not possible to be solved in the context of this research and are major limitations of this study. Therefore it would be beneficial to redo the research with a research team to minimize coding bias and increase the reliability of the results.

Second, the sample size in this research was low as research in declining industries is not case intensive area. In addition, many cases did not have adequate information to complete the survey. This undermines the reliability of the findings of this research. Increasing the size of the sample would increase the reliability of the results. Prospectors were few among the sample and by increasing the sample size; a deeper understanding of their behavior in declining industries could be gained. This might also be partly due to the fact that conditions of changing niche shapes might not be considered conditions of decline but of evolution and change.

Size of the organization relative to the niche was left outside of the scope of this research as it was not possible to accommodate it into the research. This leaves a gap in the research as size affects the power of organizations to steer the niche in which they operate in. By filling this gap a consensus could be reached of how much the choice of strategy affects success and how much the size of the organization affects this.

As this research has regarded only success strategies in declining industries, it would be interesting to contrast the success and failure rates of different strategy types in declining industries. This would yield insight into what kind of risk is involved in different strategic choices. By doing so, one could calculate the success/failure rates of different strategy types and indicate whether certain strategic types have more risk than others.

The research was designed to produce only a snapshot. Therefore, it would be essential to gain more knowledge of the ability of organizations to change their strategy type when faced with

decline and therefore succeed in the environment. This would provide crucial information of how the dynamics of strategic choice and environmental selection function in the declining industries.

7. References

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Appendix

Appendix 1: Cases in the sample

Title	industry	country	strategy type	decline condition
Anand, Jaideep and Harbir Singh (1997), "Asset redeployment, Acquisitions and Corporate Strategy in Declining Industries." <i>Strategic Management Journal</i> , 18 (summer), pp. 99-118.	Defense	United States	Analyzer	Contraction
Baden-Fuller C. W. F. (1989), "Exit From Declining Industries and the Case of Steel Casting." <i>The Economic Journal</i> , 99 (398), 949-961.	Steel casting	United Kingdom	Defender	Contraction
Barr, Pamela S., J. T. Stimpert and Anne S. Huff (1992), "Cognitive Change, Strategic Action, and Organizational Renewal." <i>Strategic Management Journal</i> , 13 (summer), pp. 15-36.	Railroads	United States	Defender	Erosion
Leonard, Barry (1984), "The Use of Strategic Management in a Small Group of Companies under Conditions of Decline." <i>International Studies of Management and Organizations</i> , 13 (4), pp. 42-62.	Vehicle manufacturing	Ireland	Defender	Erosion
Cameron, Kim (1983), "Strategic Responses to Conditions of Decline: Higher Education and the Private Sector." <i>The Journal of Higher Education</i> , 54 (4), pp. 359-380.	Tobacco	United States	Analyzer	Erosion
Dial, Jay and Kevin J. Murphy (1995), "Incentives, downsizing, and the value creation at General Dynamics." <i>Journal of Financial Economics</i> , 37, pp. 261-314.	Defense	United States	Defender	Erosion
Filatovchev, Igor and Steve Toms (2003), "Corporate Governance, Strategy and Survival in a Declining Industry: A Study of UK Cotton Textile Companies." <i>Journal of Management Studies</i> , 40 (4), pp. 895-920.	Cotton textile	United Kingdom	Analyzer	Dissolution
Grant, Robert M. (1989), "Competing Against Low Cost Cutlery Imports." <i>Long Range Planning</i> , 22 (5), pp. 59-68.	Cutlery	United Kingdom	Defender	Erosion
Grushecky, Shawn T., Urs Buehlmann, Al Schuler and William Luppold (2006), "Decline in the U.S. furniture industry: A case study of the impact to the hardwood lumber supply chain." <i>Wood and Fiber Science</i> , 38 (2), pp. 365-376.	Hardwood lumber	United States	Analyzer	Collapse
Harfield, Toby and R.T. Hamilton (1997), "Journeys in a declining industry: stories of footwear manufacturing." <i>Journal of Organizational Change Management</i> , 10 (1), pp. 61-70.	Footwear manufacturing	New Zealand	Analyzer	Collapse
Harfield, Toby and R.T. Hamilton (1997), "Retreat from volume: survival strategies in a declining industry." <i>Strategic Change</i> , 6, pp. 187-194.	Footwear manufacturing	New Zealand	Analyzer	Collapse
Helfat, Constance E. and Kathleen M. Eisenhardt (2004), "Inter-temporal economies of scope, organizational modularity, and the dynamics of diversification." <i>Strategic Management Journal</i> , 25 (13), pp. 1217-1232.	Electronics	United States	Prospector	Collapse
Klepper, Steven and Kenneth L. Simons (2000), "Dominance by Birthright: Entry of Prior Radio Producers and Competitive Ramifications in the U.S. Television Receiver Industry." <i>Strategic Management Journal</i> , 21 (10/11), pp. 997-1016.	Television receiver	United States	Prospector	Collapse
Ludwig, Dean C. (1993), "Adapting to Declining Environment: Lessons from a Religious Order." <i>Organization Science</i> , 4 (1), pp. 41-56.	Catholic Church	United States	Defender	Erosion
Martin, Jeffrey A. and Kathleen M. Eisenhardt (2004), "Coping with decline in dynamic markets: corporate entrepreneurship and recombinative organizational form." <i>Advances in Strategic Management</i> , 21, pp. 357-382.	Electronics	United States	Prospector	Collapse

Matesova, Jana (1993), "Textile/Cloth: Veba Broumov: The King of a Declining Industry." <i>Eastern European Economics</i> , 31 (6), pp. 36-51.	Textile	Czech	Defender	Erosion
Meyer, Alan D., Geoffrey Brooks and James B. Goes (1990), "Environmental Jolts and Industry Revolution: Organizational Responses to Discontinuous Change." <i>Strategic Management Journal</i> , 11 (summer), pp. 93-110.	Medical-surgical hospitals	United States	Prospector	Collapse
Ruiz-Navarro, José (1998), "Turnaround and Renewal at a Spanish Shipyard." <i>Long Range Planning</i> , 31 (1), pp. 51-59.	Defense	Spain	Analyzer	Contraction
Papin, Mike W. and Brian H. Kleiner (1998), "Effective strategic management in the aerospace industry." <i>Aircraft Engineering and Aerospace Technology</i> , 70 (1), pp. 38-44.	Aerospace	United States	Analyzer	Contraction
Pluta, Joseph E. (2007), "Entrepreneurial Challenges in a Declining Industry: The Case of Hobby Shops" <i>Central Business Review</i> , 26 (1-2), pp. 4-10.	Hobby shops	United States	Defender	Erosion
Recker, Gene, Michael E. Goldsby and Christopher P. Neck (2002), "Organizational survival within a declining industry: an analysis of a single sex boarding school." <i>The International Journal of Education Management</i> , 16 (3), pp. 137-143.	Boarding school	United States	Analyzer	Dissolution
Rosenblatt, Zehava and Bilha Mannheim (1996), "Organizational Responses to Decline in the Israeli Electronics Industry." <i>Organization Studies</i> , 17 (6), pp. 953-984.	Electronics	Israel	Defender	Contraction
Sheard, Paul (1991), "The Role of Firm Organization in the Adjustment of a Declining Industry in Japan: The Case of Aluminum." <i>Journal of the Japanese and International Economics</i> , 5, pp. 14-40.	Aluminum smelting	Japan	Analyzer	Contraction
Siomkos, George and Paul Shrivastava (1987), "Strategies for Declining Businesses – Survival in the Fur Business" <i>Long Range Planning</i> , 20 (6), pp. 84-95.	Fur	Greece	Defender	Collapse
Smith, Ken G. and Curtin M. Grimm (1987), "Environmental Variation, Strategic Change and Firm Performance: A Study of Railroad Deregulation." <i>Strategic Management Journal</i> , 8 (4), pp. 363-376.	Railroad	United States	Analyzer	Collapse
Tigert, D.J. (1985), "The Changing Portfolio of Business Schools." <i>Journal of Management Development</i> , 4 (2), pp. 48-53.	MBA programs	Canada	Analyzer	Erosion
Zillante, Artie (2005), "Survival in a Declining Industry: The Case of Baseball Cards." <i>Industrial Organization</i> , May 2005, pp. 1-15	Baseball cards	United States	Analyzer	Contraction

Appendix 2: Survey form used to generate the data

Environmental decline and success strategy type

Survey questionnaire

case number:

Product-market: ☐ Product ☐ Service

Served market: ☐ B2B ☐ B2C

Environmental decline (Zammuto and Cameron 1985)

Type of change

Change in in the niche results from:

Change in niche shape

Change in niche size

1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Continuity of change

Change in the niche size is:

Continuous

Discontinuous

1	2	3	4	5	6	7
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Strategy type (adapted from Snow and Hrebiniak 1980)

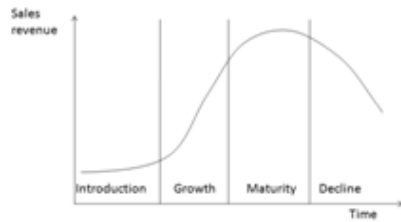
Which one of the following descriptions most closely fits the strategy of the organization?

- ☐ Type 1 This type of organization attempts to locate and maintain a secure niche in the product market. The organization tends to offer a more limited range of products or services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this type of organization is not at the forefront of developments in the industry - it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.
- ☐ Type 2 The organization values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. The organization responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this type of organization may not maintain market strength in all of the areas it enters.
- ☐ Type 3 This type of organization attempts to maintain a stable, limited line of products or services, while at the same time moving out quickly to follow a carefully selected set of the more promising new developments in the industry. The organization is seldom "first in" with new products or services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, the organization can frequently be "second in" with a more cost-efficient product or service.
- ☐ Type 4 This type of organization does not appear to have a consistent product-market orientation. The organization is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, the organization responds in those areas where it is forced to by environmental pressures.

Appendix 3: Types of product life cycle patterns

(Adapted from Rink and Swan 1979)

1. Classical Bell Shaped



2. Cycle-Recycle

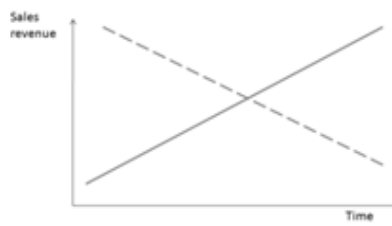


3. Cycle-Half Cycle



4. Increase Sales

5. Decrease Sales

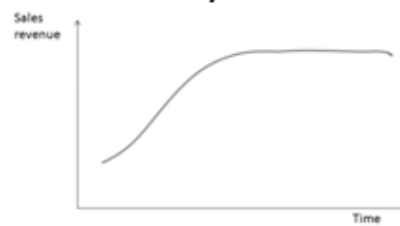


6. High Plateau

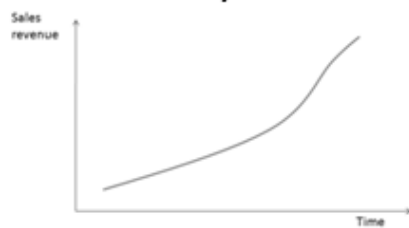
7. Low Plateau



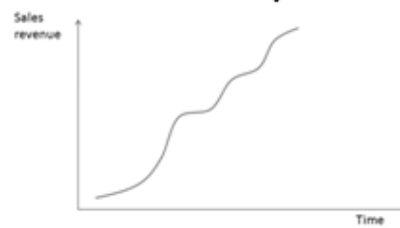
8. Stable Maturity



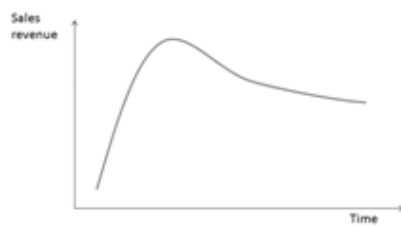
9. Growth Maturity



10. Innovative Maturity



11. Growth-Decline Plateau



12. Rapid Penetration

